

EXHIBIT B

Day 10

NAE Arbitration

28 June 2016

<p>1 Tuesday, 28 June 2016</p> <p>2 (9.28 am)</p> <p>3 Housekeeping</p> <p>4 MR WADE: Before you begin you will have seen on your desk,</p> <p>5 I think, copies of this, which we promised you. I am</p> <p>6 just letting you know that it's there.</p> <p>7 THE CHAIRMAN: Very good. Good morning, everyone. It is,</p> <p>8 I believe, June 28. This is LCIA arbitration 132498.</p> <p>9 We received last night the letter from the claimant.</p> <p>10 Before I turn to that very briefly, are there any other</p> <p>11 procedural issues from the claimant's side?</p> <p>12 MR NESBITT: Not from our side, sir.</p> <p>13 THE CHAIRMAN: From the respondents' side?</p> <p>14 MR WADE: No.</p> <p>15 THE CHAIRMAN: Very good.</p> <p>16 With respect to the submission of the two additional</p> <p>17 documents, the Tribunal will look at those over lunch.</p> <p>18 I have one quick question for the claimant, and I might</p> <p>19 not have looked at things closely enough, but do the</p> <p>20 exhibits that have been submitted, I believe it is C40</p> <p>21 and 41, are they photocopies of documents from 2012?</p> <p>22 You may wish to --</p> <p>23 MR NESBITT: I might need to ask ...</p> <p>24 MR SHOESMITH: (Inaudible) but yes.</p> <p>25 THE CHAIRMAN: No.</p> <p>Page 1</p>	<p>1 maintained up to the present time or is it -- you see,</p> <p>2 this is the hole point, it is either a document which</p> <p>3 existed in its final form on 2012 or it is not. If it</p> <p>4 is a document which existed in its final form on 2012</p> <p>5 and you print out a PDF of an Excel or whatever from</p> <p>6 2012 and it has no redactions and nothing, that's one</p> <p>7 thing. If what it is is extracted data from a computer</p> <p>8 program that was extracted in the last three weeks,</p> <p>9 that's a totally different thing. So just get your</p> <p>10 instructions on that, if you would, and get back to us,</p> <p>11 because --</p> <p>12 MR NESBITT: Yes, it is not extracted data.</p> <p>13 THE CHAIRMAN: It is not --</p> <p>14 MR NESBITT: It is a contemporaneous record that was made at</p> <p>15 the time, but unlike the written mail logs you saw, it</p> <p>16 was maintained electronically. It has not been</p> <p>17 manipulated in way, if that is really what you're</p> <p>18 getting at.</p> <p>19 THE CHAIRMAN: No, because the document appears to be</p> <p>20 a sheet of white paper, and I am just at a loss to</p> <p>21 understand how that sheet of white paper could exist in</p> <p>22 the abstract. The respondent has specifically raised</p> <p>23 a question about this, because it's a sheet of white</p> <p>24 paper, as I see it, which has a bunch of numbers on the</p> <p>25 left. It looks like it's an extract from an Excel</p> <p>Page 3</p>
<p>1 MR NESBITT: Sorry, the answer is they are contemporaneous</p> <p>2 2012 records made at the time, but the documents that</p> <p>3 you have are PDF copies of the extract from the log.</p> <p>4 THE CHAIRMAN: Please take instructions on that point,</p> <p>5 because the document, according to the respondents, they</p> <p>6 have asked a question whether this was just extracted</p> <p>7 from some Excel material, in which case it is not</p> <p>8 a contemporaneous document, it is a document that has</p> <p>9 been created by extracting certain data. That is one</p> <p>10 possibility.</p> <p>11 The other possibility is that it is a photocopy of</p> <p>12 a document that was created by some person in 2012.</p> <p>13 Those are the two possibilities that I see, and if you</p> <p>14 could just get back to us, perhaps after the coffee</p> <p>15 break, as to which of those it is.</p> <p>16 MR NESBITT: I am pretty sure I know the answer already but</p> <p>17 I will double-check.</p> <p>18 THE CHAIRMAN: You can give us a preliminary answer right</p> <p>19 now, if you'd like.</p> <p>20 MR NESBITT: Well, I think, as I said, it's a record that is</p> <p>21 kept electronically at the time and updated each time</p> <p>22 a piece of mail comes in, and what's been provided is</p> <p>23 a printout of the relevant bit of the record for those</p> <p>24 dates.</p> <p>25 THE CHAIRMAN: So it's an electronic record that has been</p> <p>Page 2</p>	<p>1 sheet, but is it a complete extract? Where does it come</p> <p>2 from? We don't know anything. We have a sheet of white</p> <p>3 paper here for the time being.</p> <p>4 MR NESBITT: I think the explanation is in the emails, but</p> <p>5 if that is not clear I will seek instructions and come</p> <p>6 back to you at lunchtime, if that's okay.</p> <p>7 THE CHAIRMAN: I might have missed something in the emails,</p> <p>8 for which I apologise in advance.</p> <p>9 MR NESBITT: No, not at all.</p> <p>10 THE CHAIRMAN: If you could get back to us before we have</p> <p>11 a discussion about the document at lunchtime, that would</p> <p>12 be great.</p> <p>13 MR NESBITT: Sure.</p> <p>14 DR SIMON MOY (called)</p> <p>15 THE CHAIRMAN: Dr Moy.</p> <p>16 A. Thank you, gentlemen. My name is Simon Moy --</p> <p>17 THE CHAIRMAN: Just before you start, Dr Moy, you've</p> <p>18 provided an expert opinion in these proceedings.</p> <p>19 A. I have, yes.</p> <p>20 THE CHAIRMAN: And you have also signed a joint report.</p> <p>21 A. I have.</p> <p>22 THE CHAIRMAN: And you understand your duty to the Tribunal</p> <p>23 to express your best professional opinion?</p> <p>24 A. Yes, I do.</p> <p>25 THE CHAIRMAN: Thank you very much.</p> <p>Page 4</p>

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<p>1 Examination-in-chief by MR GUNNING</p> <p>2 A. Okay. Great.</p> <p>3 MR GUNNING: Dr Moy, hopefully you have in front of you</p> <p>4 bundle E2. Do you have that?</p> <p>5 A. Yes.</p> <p>6 Q. If you could turn to tab 2, I think you should have</p> <p>7 a copy of your report in these proceedings.</p> <p>8 A. Yes.</p> <p>9 Q. I think if we look at tab 3, we can see that that was</p> <p>10 sent -- I hope you don't mind me leading on this -- on</p> <p>11 24 February 2016, and included some amendments to</p> <p>12 a previous draft; is that right?</p> <p>13 A. That's correct.</p> <p>14 Q. And if we turn to tab 4, I think I have this the right</p> <p>15 way round, maybe I haven't, there is a tracked changes</p> <p>16 version; is that right?</p> <p>17 A. That's right.</p> <p>18 Q. Okay. And can you confirm that that's a copy of the</p> <p>19 report as amended?</p> <p>20 A. Yes.</p> <p>21 Q. In addition, we have in bundle E3 at tab 5 a copy of</p> <p>22 your joint statement with Mr Filippi.</p> <p>23 A. Mmm-hmm.</p> <p>24 Q. Then on top of that, if we go back, I think to</p> <p>25 bundle E2 -- no, sorry, at the back of E3 --</p> <p style="text-align: center;">Page 5</p>	<p>1 South America. I have been involved with reservoir</p> <p>2 engineering, reservoir simulation, material balance,</p> <p>3 well test, well test interpretations. I have planned,</p> <p>4 executed and interpreted PLTs. I've been involved with</p> <p>5 reserve auditing.</p> <p>6 In 2013 I joined Rockflow Resources as a director</p> <p>7 and partner. Rockflow is a partner-owned subsurface</p> <p>8 consultancy based in Haslemere.</p> <p>9 I am just making sure I don't run out of time.</p> <p>10 So I hope that I will be able to inject a little bit</p> <p>11 of clarity into the discussion so far concerning the</p> <p>12 issues that we've been discussing. Some of the points</p> <p>13 that I am going to be covering are related to recovery</p> <p>14 in these kinds of reservoirs, the sensitivity of coning</p> <p>15 to rate; the role of permeability in coning.</p> <p>16 I am going to briefly look at the Oyo wells, their</p> <p>17 position in the reservoir, and in particular their GOR</p> <p>18 trends, and a brief summary of the findings of the paper</p> <p>19 covering the 35 Nigerian oil rim reservoirs.</p> <p>20 The picture on the top left-hand corner you saw at</p> <p>21 the beginning in the opening submissions, it's</p> <p>22 essentially the channel complex. It's a sand body</p> <p>23 encased in shale, both above and below, and I've marked</p> <p>24 Oyo central and Oyo west.</p> <p>25 In the lower right-hand side, you'll see something</p> <p style="text-align: center;">Page 7</p>
<p>1 A. Right.</p> <p>2 Q. -- at page 306 there is a letter that you sent on</p> <p>3 14 June 2016.</p> <p>4 A. 306?</p> <p>5 Q. At the very back. It will be the very last document in</p> <p>6 the whole bundle or should be. No?</p> <p>7 A. No, but I have -- I presume it's this one?</p> <p>8 Q. Yes, that's it. Okay. So can you confirm that that</p> <p>9 represents the totality of your evidence in the</p> <p>10 arbitration?</p> <p>11 A. It does, yes.</p> <p>12 Q. And can you confirm that, subject to any clarifications</p> <p>13 that you make in the presentation, that it represents</p> <p>14 your true and professional opinion?</p> <p>15 A. It does, yes.</p> <p>16 MR GUNNING: Okay. Thank you, Dr Moy.</p> <p>17 Okay, thank you.</p> <p>18 THE CHAIRMAN: Please start, Dr Moy.</p> <p>19 Presentation by DR MOY</p> <p>20 DR MOY: Thank you very much. Okay. As you know, I am</p> <p>21 Simon Moy. I have been in the oil business for</p> <p>22 22 years. I graduated from Imperial with a master's</p> <p>23 degree in petroleum engineering. I started my career</p> <p>24 with BG E&P, then developed my career in the independent</p> <p>25 sector, working in central Asia, Africa and</p> <p style="text-align: center;">Page 6</p>	<p>1 that was familiar from yesterday, which is an exploded</p> <p>2 view of Oyo central showing the divided fault, and I've</p> <p>3 marked on there the various locations of the wells, both</p> <p>4 horizontal and vertical.</p> <p>5 Let me just reiterate all the production so far has</p> <p>6 occurred in Oyo central west. All but one of the wells</p> <p>7 that have pressure data is located in that part of the</p> <p>8 field.</p> <p>9 On the eastern side we have Oyo-8, which is</p> <p>10 a vertical well, and although there's been no production</p> <p>11 there we have pressure data, and it was that pressure</p> <p>12 data that confirmed the presence of both contacts of</p> <p>13 different depths and a different pressure regime. It's</p> <p>14 also worth mentioning that the Oyo reservoir is</p> <p>15 overpressured in fact on the western side -- sorry, on</p> <p>16 the western side it is overpressured by 500 psi.</p> <p>17 Recovery, it is very important. What I am about to</p> <p>18 say applies to every oilfield, whether it is large or</p> <p>19 small, whether it has a gas cap or not. Maximising oil</p> <p>20 recovery means minimising gas production. In</p> <p>21 particular, if you can minimise your cumulative gas-oil</p> <p>22 ratio you will maximise your oil recovery. That's</p> <p>23 derived from the basis of material balance, effectively</p> <p>24 the oil recovery is a reciprocal of cumulative GOR.</p> <p>25 Why is that the case? One of the most important</p> <p style="text-align: center;">Page 8</p>

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<p>1 things is keeping gas in the reservoir keeps the energy</p> <p>2 in the reservoir. If you produce that gas, you're</p> <p>3 taking out the most compressible fluid in the reservoir.</p> <p>4 So it is very important to control the amount of gas</p> <p>5 that the wells produce. Sometimes that's unavoidable,</p> <p>6 but it is, in the case of producing directly from the</p> <p>7 gas cap, something that you can avoid.</p> <p>8 So if you produce gas directly from the gas cap you</p> <p>9 not only take energy out of the reservoir but you</p> <p>10 diminish the wells' potential for producing liquids</p> <p>11 because, as we heard yesterday, the mobility of gas is</p> <p>12 at least 17 times greater than for oil, and once that</p> <p>13 well starts producing gas, that's the preferred phase</p> <p>14 that it will produce.</p> <p>15 For gas cap reservoirs typical recoveries are</p> <p>16 between 25 and 35 per cent. That's not my number,</p> <p>17 that's taken from one of the bibles of reservoir</p> <p>18 engineering by Laurie Dake, and that's from his</p> <p>19 experience of dealing with these kinds of reservoirs,</p> <p>20 provided that you control the amount of gas that you</p> <p>21 produce, i.e. you prevent gas coning.</p> <p>22 I am going to be covering some of the Chaperon's</p> <p>23 equation that we mentioned --</p> <p>24 PROFESSOR LEW: Sorry, can I interrupt, you said gas cap</p> <p>25 reserves typical recoveries of between 25 and</p> <p style="text-align: center;">Page 9</p>	<p>1 PROFESSOR LEW: Thank you.</p> <p>2 DR MOY: So Chaperon we dealt with yesterday but I will</p> <p>3 cover that briefly. The Papatzacos equation developed</p> <p>4 these equations to show the gas coning and in particular</p> <p>5 the time to gas coning. Interestingly enough,</p> <p>6 Papatzacos used to confirm his equations a fine grid</p> <p>7 model, and in the paper he presents he reports that</p> <p>8 there is no error between his equations and the results</p> <p>9 in the modelling.</p> <p>10 The paper, the Shell review, the Shell survey of 35</p> <p>11 oil rim reservoirs by (inaudible) Peacock, they also</p> <p>12 used a similar model, and I will come to those later.</p> <p>13 I am going to come back to that slide that I just</p> <p>14 flicked through, but for clarity I will start with</p> <p>15 Chaperon, and we saw yesterday that that gives you</p> <p>16 an estimate of the critical rate. Now, what is the</p> <p>17 critical rate? It is the rate at which gas starts to</p> <p>18 cone from the gas cap down towards the well, and in this</p> <p>19 case, in the slide that I've shown there, I've taken the</p> <p>20 parameters at the bottom, which are the ones that are in</p> <p>21 the report, and for a range of permeabilities I've</p> <p>22 calculated the critical rate.</p> <p>23 As you can see, the relative performance as you</p> <p>24 decrease your permeability, as your reservoir</p> <p>25 permeability drops, the critical rate drops. Why is</p> <p style="text-align: center;">Page 11</p>
<p>1 35 per cent.</p> <p>2 DR MOY: That's correct.</p> <p>3 PROFESSOR LEW: What do you mean by recoveries?</p> <p>4 DR MOY: Okay, that's a good question. That's the</p> <p>5 proportion of the in-place oil that you can hope to</p> <p>6 recover. Actually, that may seem like a low percentage</p> <p>7 but that's pretty average. Due to the capillary</p> <p>8 pressures in the reservoir, it is very rare to get</p> <p>9 recoveries above 50 per cent. It is possible but you</p> <p>10 need a good combination of rock properties, oil</p> <p>11 properties, strong aquifer. So recoveries of over</p> <p>12 20 per cent to 35/40 per cent are probably where the</p> <p>13 majority of fields with good quality oil that that's</p> <p>14 their recovery range. So this is within that range.</p> <p>15 PROFESSOR LEW: You are recovering the oil in what way?</p> <p>16 A. Through production, yes. So essentially when we talk</p> <p>17 about in-place volumes, that's the estimate that we make</p> <p>18 of what's actually underground. However, there's always</p> <p>19 a much smaller proportion that you can hope to recover</p> <p>20 over five, ten, 15, 20 years of the life of the field.</p> <p>21 And as I said, 35 per cent, that's kind of typical,</p> <p>22 I suppose, but quite normal. Although for the people</p> <p>23 who are unfamiliar with the oil business they are</p> <p>24 surprised at how low it is, but it is a factor to do</p> <p>25 with capillary pressures. Should I continue?</p> <p style="text-align: center;">Page 10</p>	<p>1 that? Well, for a given oil rate in the reservoir the</p> <p>2 lower the permeability, the bigger the pressure</p> <p>3 drawdowns required to give that rate and, as we heard</p> <p>4 earlier, the mobility of the oil is greater than for oil</p> <p>5 (sic), and it's the drawdown forces, the pressure</p> <p>6 forces, which overcome the buoyancy of the gas. The gas</p> <p>7 actually would like to stay at the top in the gas cap.</p> <p>8 Papatzacos, his equation is a bit more sophisticated</p> <p>9 in that he gives an estimate of the days to gas</p> <p>10 breakthrough. There is a lot in this, so I am going to</p> <p>11 run you through it carefully.</p> <p>12 So on the Y axis we have oil rate. On the X axis</p> <p>13 days to breakthrough, and what I have done here is I've</p> <p>14 used the equations to plot three curves at a range of</p> <p>15 permeability, it's 800, 500 and 300 millidarcy.</p> <p>16 So if we go from 15,000 barrels of oil a day in</p> <p>17 an 800 millidarcy reservoir we can see in fact that days</p> <p>18 to gas breakthrough is 150 days, roughly. If we were to</p> <p>19 drop the permeability to 300, it would give us</p> <p>20 a breakthrough of 30 days.</p> <p>21 Now, these curves are very non-linear so what it is</p> <p>22 saying here is if we had a rate of three and a half --</p> <p>23 sorry, 7,500 barrels of oil a day we more than double</p> <p>24 the time to gas breakthrough. It is very clear the</p> <p>25 trends that are shown on these curves, the relationship</p> <p style="text-align: center;">Page 12</p>

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<p>1 between rate, permeability and days to gas breakthrough.</p> <p>2 For completeness I've added on here the critical</p> <p>3 rates that we saw on the previous slide based on</p> <p>4 Chaperon's, which merely indicate the rate at which gas</p> <p>5 starts to cone. It doesn't give you any information</p> <p>6 about the time to gas breakthrough.</p> <p>7 The fine grid cell models that I was talking about,</p> <p>8 coning studies, are beautifully summarised in this</p> <p>9 slide, and for the benefit of the Tribunal, I've put in</p> <p>10 what this grid represents. So what the authors have</p> <p>11 done is in the green section is the gas field and the</p> <p>12 red is the oilfield, and I've drawn a schematic to show</p> <p>13 what it represents in terms of its relationship to the</p> <p>14 contacts and the reservoir.</p> <p>15 Note something that is very important is that, first</p> <p>16 of all, this is a horizontal well, which goes into the</p> <p>17 slide. Secondly, the cloud of cells around the</p> <p>18 horizontal well are very, very small. And notice the</p> <p>19 change in saturation. It is basically a curtain of gas</p> <p>20 coming down towards the well. So there is a high</p> <p>21 saturation change over a very small volume, which can</p> <p>22 only be properly reproduced when you simulate it using</p> <p>23 grid cells of this small size.</p> <p>24 The next slide here really summarises the range of</p> <p>25 cell sizes in these models, and here we see the</p> <p style="text-align: center;">Page 13</p>	<p>1 green, and the red dots is also real data.</p> <p>2 What do we mean by a well test? Well, we flow the</p> <p>3 well and we shut the well in suddenly, preferably down</p> <p>4 hole, and we monitor the rise in bottom hole pressure.</p> <p>5 A very sharp rise and then it levels off.</p> <p>6 The magic appears when we plot it on a log-log</p> <p>7 scale, which is what these are, and also not only do we</p> <p>8 plot the pressure but we plot the gradient of the</p> <p>9 pressure response, which is called the derivative. So</p> <p>10 this red data represents the derivative or gradient of</p> <p>11 the green data. And what the well test engineer will do</p> <p>12 is he will use his well test interpretation software</p> <p>13 that will generate a response from a conceptual</p> <p>14 reservoir model of the reservoir around the well, and it</p> <p>15 will reproduce from theory the theoretical performance</p> <p>16 that you would expect to see, and so the interpretation</p> <p>17 engineer matches real data with modelled data. You can</p> <p>18 see here how good the matches are, and it is from these</p> <p>19 that you get an estimate that is fairly reliable of the</p> <p>20 permeability.</p> <p>21 However, when we come to Oyo-5, what do we see here?</p> <p>22 We have the build-up on a log-log scale, which are the</p> <p>23 green data. We have the gradient of that response,</p> <p>24 which is the red data, and notice it's all over the</p> <p>25 place.</p> <p style="text-align: center;">Page 15</p>
<p>1 Papatzacos grid that he used in comparing his</p> <p>2 theoretical results with simulation.</p> <p>3 What they have in common is the very fine dimensions</p> <p>4 in order to reproduce this coning, which are absent both</p> <p>5 from the Filippi model and the D&M model, and these</p> <p>6 I have left out -- this is 55 by 45 metres by</p> <p>7 1.2 metres, and this is 100 by 100 by 4 metres.</p> <p>8 So neither the D&M or the Filippi model really</p> <p>9 effectively model this phenomena.</p> <p>10 So in conclusion, for this section anyway, we've</p> <p>11 seen gas coning is rate-sensitive and we've seen that</p> <p>12 it's also a function of the permeability.</p> <p>13 Now, if we get on to the permeability we see in the</p> <p>14 Oyo reservoir, there is a high degree of uncertainty as</p> <p>15 to what the permeability actually is. We have core</p> <p>16 data, which in itself is very, very wide. At one point</p> <p>17 the maximum is over 10,000 millidarcy. We have well</p> <p>18 test data from Oyo-4 and Oyo-6, and we have a test</p> <p>19 interpretation from Oyo-5. However, I will come to that</p> <p>20 in one of the next slides.</p> <p>21 So what do we mean by well test interpretation and</p> <p>22 permeability?</p> <p>23 On the screen I have two examples from Oyo, Oyo-4 on</p> <p>24 the left and Oyo-6 on the right-hand side, and what</p> <p>25 I want you to look at are the dots. So the real data is</p> <p style="text-align: center;">Page 14</p>	<p>1 Also we have the continuous line, which are linked,</p> <p>2 because the continuous red line is the pressure</p> <p>3 build-up, and it's tied in completely with its gradient,</p> <p>4 which is the dark line, the black line. And it's where</p> <p>5 this dark line intersects the Y axis which determines</p> <p>6 the permeability. The higher this is, the lower the</p> <p>7 permeability. The lower this intersect, the higher the</p> <p>8 permeability. But as an interpretation, as an engineer,</p> <p>9 I would have no means of figuring out what the true</p> <p>10 response of this well is. There are no data here to</p> <p>11 match. You would expect at least a cloud of data that</p> <p>12 you could fit the line to.</p> <p>13 So as mentioned by Mr Costa, it is pretty much</p> <p>14 uninterpretable.</p> <p>15 So getting back to permeability. The conclusion</p> <p>16 here is the uncertainty that we have in the Oyo</p> <p>17 reservoir as to the true magnitude of permeability,</p> <p>18 certainly in the Oyo-5 area. We've seen that the lower</p> <p>19 the permeability, gas cones more easily. Critical rates</p> <p>20 are lower. Gas incursion happens more quickly. And</p> <p>21 neither the D&M nor the Filippi models have grid cell</p> <p>22 resolution small enough to mirror this effect.</p> <p>23 Let's look at the Oyo wells. I have plotted here</p> <p>24 the relative position of the three wells, Oyo-5, 7 and</p> <p>25 8, which are in the Oyo central west. In particular,</p> <p style="text-align: center;">Page 16</p>

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<p>1 I have concentrated on their relative positions from the</p> <p>2 contacts, and you'll notice that they have similar</p> <p>3 producing lengths, they have similar depths, and Oyo-8</p> <p>4 in fact is shallower, even though it has got the lower</p> <p>5 GOR.</p> <p>6 If we go to a plot of their GOR. And on here, this</p> <p>7 is just part of the range, the Oyo-5 GOR continued to</p> <p>8 increase, in fact it reaches 45,000 standard cubic feet</p> <p>9 per barrel.</p> <p>10 Oyo-8 we have a small increase here. What I want to</p> <p>11 concentrate on for the moment is this Oyo-6 and Oyo-7.</p> <p>12 Oyo-6 is in Oyo west. It's a different kind of</p> <p>13 reservoir. What I am going to show is that this</p> <p>14 response is what you would expect from solution drive</p> <p>15 reservoir, not gas cap.</p> <p>16 What is a solution drive reservoir? It's when the</p> <p>17 well is producing, it goes the below the bubble point,</p> <p>18 oil comes out of -- gas comes out of a solution.</p> <p>19 So here we have a GOR which rose but, apart from</p> <p>20 peaking around 5,000, dropped back down and stayed below</p> <p>21 4,000. And Oyo-6, if you remember from yesterday,</p> <p>22 produced almost 4 million barrels from a smaller</p> <p>23 reservoir.</p> <p>24 What is important here is to look at how Oyo-6 or</p> <p>25 Oyo-7 data lies on top of the Oyo-6 trend. What I would</p> <p style="text-align: center;">Page 17</p>	<p>1 then they reach a point here where clearly conditions at</p> <p>2 the well drop below the bubble point.</p> <p>3 Now, although it is a gas cap reservoir, it's the</p> <p>4 contact that's at the bubble point by definition. The</p> <p>5 wells are 20 metres or so below. What happens at this</p> <p>6 point is that the flowing bottom hole pressure falls</p> <p>7 below the bubble point and gas comes out of solution.</p> <p>8 That's totally normal. And the region around the well</p> <p>9 which falls below the bubble point grows as the well</p> <p>10 continues to produce. And because the gas is more</p> <p>11 mobile what tends to happen, because there is</p> <p>12 a drawdown, there's a pressure difference between the</p> <p>13 well and the reservoir, is that it is the gas that is</p> <p>14 preferentially produced at the well.</p> <p>15 What is happening is that gas that comes out of</p> <p>16 solution further away from the well is produced, and</p> <p>17 that leaves oil in the reservoir, which is deficient in</p> <p>18 gas. The producing GOR, as we see here, increases.</p> <p>19 So what I have plotted here is a figure from Dake,</p> <p>20 which shows the same phenomena. The numbers are</p> <p>21 different because the GOR here was twice that of Oyo,</p> <p>22 but we see the same phenomena, constantly producing,</p> <p>23 constant GOR until we reach the bubble point. You</p> <p>24 notice that the GOR does drop back down even though</p> <p>25 pressure has continued to drop. This is the indication</p> <p style="text-align: center;">Page 19</p>
<p>1 like to show is that in fact what we're seeing in Oyo-7</p> <p>2 is the same phenomena of solution gas coming out and</p> <p>3 being produced. This plot shows the same thing over the</p> <p>4 entire GOR scale, up to 45,000.</p> <p>5 Right, what do we have here? We have Oyo-6 and</p> <p>6 Oyo-7 GOR --</p> <p>7 THE CHAIRMAN: Excuse me, could you just go back to the</p> <p>8 prior slide. That one. That's showing the GOR for all</p> <p>9 of the wells?</p> <p>10 DR MOY: That's correct.</p> <p>11 THE CHAIRMAN: And based on the quantity of oil produced?</p> <p>12 DR MOY: That's correct.</p> <p>13 THE CHAIRMAN: But not based on time?</p> <p>14 DR MOY: No, and the reason it is plotted like that is that</p> <p>15 it is -- it is a very good point, because if you plot</p> <p>16 against time what you'll find it's -- what this shows</p> <p>17 is the true proportion of gas that's been produced</p> <p>18 relative to a volume of oil.</p> <p>19 So if trends are different on this plot, it's due --</p> <p>20 it is independent of how they are produced. So whether</p> <p>21 it is at a high rate or a low rate, you can see the</p> <p>22 differences on this kind of plot.</p> <p>23 THE CHAIRMAN: Thank you very much.</p> <p>24 DR MOY: So getting back to this, so what do we have here?</p> <p>25 So for both 6 and 7 we have a constant producing GOR,</p> <p style="text-align: center;">Page 18</p>	<p>1 of a solution drive reservoir, as we find certainly in</p> <p>2 Oyo-6.</p> <p>3 I am going to come back to that slide in a minute.</p> <p>4 I would like to look at Oyo-6 in a bit more detail.</p> <p>5 We have five wells -- well, there is wells</p> <p>6 essentially and three sidetracks. So we have Oyo-2, 3,</p> <p>7 and 6. And Oyo-6 was in fact drilled as a pilot hole,</p> <p>8 it was sidetracked, had to be abandoned, and it's the</p> <p>9 second sidetrack which became the producing well, and</p> <p>10 it's that data that we have.</p> <p>11 Notice on here that we have -- it is the top</p> <p>12 surface, one of the surfaces in Oyo west, and it is from</p> <p>13 an Eni presentation, and it shows the faulting in the</p> <p>14 area. It is quite heavily faulted.</p> <p>15 The next slide, there is a lot of information here,</p> <p>16 but I am going to take you through it. It's a vertical</p> <p>17 projection from those five wells, and well bores,</p> <p>18 showing the sands.</p> <p>19 Now, what do we see here? The green are the</p> <p>20 gas-filled sands. The red are the oil-filled sands.</p> <p>21 The blue are filled with water.</p> <p>22 The sands that you see that are green are very thin.</p> <p>23 They are 5/8 metres, sometimes thinner. Notice also the</p> <p>24 distance between the Oyo-6 pilot hole and sidetracks is</p> <p>25 very small, 50 to 80 metres, and note how the sands are</p> <p style="text-align: center;">Page 20</p>

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<p>1 very discontinuous. How can we tell? Because they are</p> <p>2 difficult to correlate between one well and the other.</p> <p>3 So if we look here sands pinch out and disappear. They</p> <p>4 are not present. They move around. It is quite</p> <p>5 a difficult picture.</p> <p>6 The producing interval of Oyo-6 sidetrack 2 is here.</p> <p>7 This sand is 20 metres thick. It is important to</p> <p>8 realise that despite these gas sands being present,</p> <p>9 there are lots of shales, and in particular shale right</p> <p>10 above the oil-filled sand.</p> <p>11 Now, a gas-oil contact was indeed measured directly</p> <p>12 in one of these sands in the pilot hole at a vertical</p> <p>13 depth of 1,579 metres true vertical depth subsea.</p> <p>14 If we go back to that first slide -- this is Oyo-6</p> <p>15 sidetrack 2 -- what we can here is a schematic</p> <p>16 showing -- from the true well deviation survey. I have</p> <p>17 drawn in the 20-metre sand. If we were to go up to</p> <p>18 a depth of 1,579 where the contact was observed in the</p> <p>19 other well, we would have to go back 153 metres along</p> <p>20 hole, up dip.</p> <p>21 The sand itself is oil-filled, and there's shale</p> <p>22 above and below. It's completely isolated. There is no</p> <p>23 gas cap here, and it is unlikely the sand would extend</p> <p>24 153 metres based on the fact that from the logs you can</p> <p>25 see that the area -- the sands are very discontinuous,</p> <p style="text-align: center;">Page 21</p>	<p>1 these 35 fields as thin to moderate. So that would put</p> <p>2 Oyo way outside, and it's important because if you are</p> <p>3 dealing with a thin oil rim reservoir, indeed gas coning</p> <p>4 is very difficult to control.</p> <p>5 They summarise their results in an equation, which</p> <p>6 I've tried to communicate the results in this one</p> <p>7 picture. The important parameters are the aquifer size</p> <p>8 and the permeability.</p> <p>9 And where have I got this 13 from? 13 is the ratio</p> <p>10 of the aquifer size to the hydrocarbon volume at</p> <p>11 reservoir conditions. That's been taken from the Eni</p> <p>12 model 2008, which very nicely included all the aquifer</p> <p>13 under the Oyo central structure, and most of the aquifer</p> <p>14 is there, and the ratio that's between aquifer and</p> <p>15 hydrocarbon is 13.</p> <p>16 I've highlighted those three cases with a range of</p> <p>17 permeability between 300 and 800 millidarcy, and you can</p> <p>18 see that in fact Oyo would sit here and we get</p> <p>19 an intercept, which is round about 13 million barrels'</p> <p>20 recovery for a typical horizontal well.</p> <p>21 Now, if we look at the --</p> <p>22 PROFESSOR LEW: If you just go back to that slide, what is</p> <p>23 aquifer ratio?</p> <p>24 A. It is the ratio of the volume of the aquifer to the</p> <p>25 volume occupied by the hydrocarbons, so that's both gas</p> <p style="text-align: center;">Page 23</p>
<p>1 over distances of 50 to 80 metres.</p> <p>2 This slide really summarised what I've just</p> <p>3 mentioned. So the point I am trying to get over and</p> <p>4 communicate is that Oyo-6 GOR trend is what you would</p> <p>5 expect from a solution gas-drive reservoir.</p> <p>6 Oyo-8 is similar. We see a constant GOR. We have</p> <p>7 hit the bubble point. The GORs increase. That's</p> <p>8 totally normal. You can't avoid it. It's completely</p> <p>9 different from gas incursion from the gas cap.</p> <p>10 Looking at the Shell survey of 35 Nigerian oil rim</p> <p>11 reservoirs. Now, what the authors did, they looked at</p> <p>12 35 fields. They looked at recoveries per well. They</p> <p>13 looked at the range of parameters that controlled</p> <p>14 recovery. They then quantified that by comparison with</p> <p>15 their simulation grid or simulation model, the grid</p> <p>16 I showed in one of the earlier slides. It is important</p> <p>17 to communicate the fact that the range of parameters of</p> <p>18 these Oyo fits nicely inside, in all of them, apart from</p> <p>19 one parameter, and that's the thickness of the oil rim.</p> <p>20 We heard yesterday that Oyo is in fact a thin oil</p> <p>21 rim reservoir. It is not a thin oil rim reservoir.</p> <p>22 The 35 fields here have an average oil rim of</p> <p>23 15 metres, and the thickest is 25 metres. Oyo itself is</p> <p>24 40 metres.</p> <p>25 Now, the authors themselves describe their fields or</p> <p style="text-align: center;">Page 22</p>	<p>1 and oil.</p> <p>2 So if we go to the profiles that I've presented in</p> <p>3 my reports, the models that I received from D&M, there</p> <p>4 is a geomodel and there's a simulation model. The grid</p> <p>5 was identical in both cases, and in fact the multiplier</p> <p>6 that came with the -- okay, the permeability in the GOR</p> <p>7 model ... (Pause).</p> <p>8 The permeability in the geomodel is based on core.</p> <p>9 It is quite high, very high, as we've seen in the core</p> <p>10 samples. D&M applied a multiplication factor of 0.1,</p> <p>11 and that's where the issue with the 0.1 and the 0.2</p> <p>12 comes from, and that reduced the core permeabilities</p> <p>13 down to something that was closer to some of the well</p> <p>14 test information. So it is that that I then used to</p> <p>15 generate the profiles.</p> <p>16 In order to get a less gassy Oyo-5 -- because you've</p> <p>17 seen these models are insensitive really to cone</p> <p>18 together bring that out -- I increased the permeability</p> <p>19 by changing the multiplier by 0.2 across the field and</p> <p>20 setting it to 1 around Oyo-5.</p> <p>21 THE CHAIRMAN: Sorry, in order to what? I didn't quite</p> <p>22 follow that.</p> <p>23 A. Well, what I wanted to try and do is to get Oyo-5 to</p> <p>24 behave like Oyo-7, in terms of its GOR versus cumulative</p> <p>25 oil. So in order to do that in the model, in order to</p> <p style="text-align: center;">Page 24</p>

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<p>1 make the model less gassy, as we saw earlier, 2 I increased the permeability, because in more permeable 3 reservoirs considering the range of uncertainty you can 4 reduce the ease with which gas cones. And also if you 5 reduce the GOR, we've seen from the very first slide, 6 you are reducing your cumulative GOR, that actually 7 increases your oil recovery. So what we have here on 8 this slide is the historic production, which is 9 3.5 million, and the "but for" case, which is around 10 9 million.</p> <p>11 We have two other wells that were modelled in the 12 same way, Oyo B and Oyo C, which gave recoveries that 13 are on the slide. That gave a total recovery of 14 31 per cent of the fluids in the T1A reservoir, and that 15 was within the range expected for the field, based on 16 typical recoveries for gas cap reservoirs.</p> <p>17 Now, on here I've summarised the quantities for the 18 "but for" case and the actual case. The volumes here 19 are based on a multiplier of 0.1.</p> <p>20 Now, there was some issue over what is the correct 21 multiplier or what is the one that's most appropriate. 22 These results here use a multiplier of 0.1. However, it 23 may require the use of 0.2 for consistency because I've 24 used 0.2 in the "but for" cases, and the results using 25 0.2 are in my amended report.</p> <p style="text-align: right;">Page 25</p>	<p>1 submitted back on 19 February, and just for the record 2 that is in the bundle at E2, tab 6, and we will be 3 coming to that.</p> <p>4 So just one other sort of introductory point from 5 your presentation, Dr Moy, you mentioned that you did 6 a master's degree in petroleum engineering at Imperial.</p> <p>7 A. I did yes.</p> <p>8 Q. However, I understand from your report that before you 9 did your master's in petroleum engineering you started 10 off in a different field, in astrophysics, and gained 11 your first degree in astrophysics.</p> <p>12 A. I did a degree in physics and astrophysics and then went 13 on to do a PhD in star formation.</p> <p>14 Q. Yes, so it was after that that you changed direction, if 15 I can put it that way, and went into (overspeaking) --</p> <p>16 A. I did, I decided I wanted to go into the oil business.</p> <p>17 Q. Very good. So, Dr Moy, you spent an awful lot of time 18 in your presentation discussing, if I can put it this 19 way, new material that was introduced in your joint 20 report. So what I would like to do is to go back, first 21 of all, to your original report, and if you could open 22 up bundle E2 at tab 2, that is your amended report as of 23 24 February.</p> <p>24 And if you could turn to page 126 of the bundle, 25 that's the internal page 5 of your report -- do you have</p> <p style="text-align: right;">Page 27</p>
<p>1 And if we go to the final slide -- so I've hopefully 2 tried to cover these points. We've looked at recovery, 3 the sensitivity to GOR and the importance of reducing 4 gas production. We've seen the sensitivity of coning to 5 rates and the role of permeability. We've looked 6 briefly at the position of the wells and their GOR 7 trends, and we've looked at the range of recoveries one 8 might expect based on the review of the Shell fields.</p> <p>9 So, gentlemen, thank you very much.</p> <p>10 THE CHAIRMAN: Thank you.</p> <p>11 MR NESBITT: Unfortunately for Dr Moy but no doubt to the 12 relief of the Tribunal, Ms Wilford will be asking the 13 questions.</p> <p>14 Cross-examination by MS WILFORD</p> <p>15 MS WILFORD: Dr Moy, good morning.</p> <p>16 A. Good morning.</p> <p>17 Q. Mr Gunning helpfully did the first thing I was going to 18 do for me, because he has summarised all of the various 19 documents in this arbitration that have originated from 20 you. So he's been through your original report, your 21 amended report, and the letters that are on the record 22 from you.</p> <p>23 There is one document I just wanted to point out 24 that Mr Gunning didn't take you to, which was the 25 original unamended version of your report that you</p> <p style="text-align: right;">Page 26</p>	<p>1 that?</p> <p>2 A. Yes.</p> <p>3 Q. You have set out the instructions that you were 4 originally given by Stephenson Harwood, and what those 5 instructions were, were to set out your professional 6 opinion on the following matters.</p> <p>7 The first of those is:</p> <p>8 "Does the Oyo reservoir have any unusual or 9 particular attributes that should have been taken into 10 account in the drilling and production from Oyo-5?"</p> <p>11 A. Yes.</p> <p>12 Q. And then the second instruction you were given was:</p> <p>13 "What effect did the gas incursion into Oyo-5 have 14 on the likely total recoverable oil reserves and the 15 rate of recovery of those reserves from the OMLs?"</p> <p>16 And I won't read out the wording of the instruction 17 in full but just to summarise, you were asked to run 18 certain actual and "but for" forecasts production from 19 the Oyo field.</p> <p>20 A. Mmm-hmm.</p> <p>21 Q. And then the thing that Stephenson Harwood asked you to 22 do was to give your opinion on the question of:</p> <p>23 "What effect did the difficulties with reinjecting 24 gas have on the reservoir pressure on the Oyo 25 reservoir?"</p> <p style="text-align: right;">Page 28</p>

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<p>1 A. Yes.</p> <p>2 Q. And if we could just go back to the forecasts for</p> <p>3 a second. As I understand it, the significance of those</p> <p>4 forecasts is that then they were then passed to</p> <p>5 Mr Taylor for use in his damages calculations.</p> <p>6 A. That's correct.</p> <p>7 Q. Okay. So you weren't instructed, were you, Dr Moy, to</p> <p>8 use the model to investigate the source of the gas</p> <p>9 ingress into Oyo-5?</p> <p>10 A. Well, that seems to be part of the process of looking at</p> <p>11 the amount of oil and the problems that would be</p> <p>12 encountered in an oil rim reservoir.</p> <p>13 You are looking at an oil rim reservoir. By</p> <p>14 default, gas coning is going to be an issue potentially,</p> <p>15 and the two goes -- they are like this. How can you</p> <p>16 look at one without doing the other? It just doesn't</p> <p>17 make any sense.</p> <p>18 Q. Okay. But it's not apparent from the terms of your</p> <p>19 initial instructions from Stephenson Harwood that that</p> <p>20 was something you were expressly asked to do --</p> <p>21 A. Well --</p> <p>22 Q. -- but I take your point about you say (overspeaking) --</p> <p>23 A. Well, as soon as you see as a reservoir engineer that</p> <p>24 Oyo is in fact a gas cap reservoir with an oil rim, the</p> <p>25 immediate thing that comes to mind is the potential for</p> <p style="text-align: center;">Page 29</p>	<p>1 Can you turn to page 7, that's internal page 7, of</p> <p>2 the report, page 128 in the bundle. This is the start</p> <p>3 of your executive summary, and what you said at the</p> <p>4 start of your executive summary was:</p> <p>5 "The conclusions presented in this report based on</p> <p>6 the supplied information strongly suggest that Oyo-5</p> <p>7 suffered early and premature gas breakthrough caused by</p> <p>8 the operator not following internationally acceptable</p> <p>9 petroleum industry practices and standards when bringing</p> <p>10 Oyo-5 on production."</p> <p>11 A. Sorry, can you remind me which paragraph that is?</p> <p>12 Q. That is 2.1.1, it's the very --</p> <p>13 A. Oh, sorry.</p> <p>14 Q. -- start of your executive summary.</p> <p>15 A. Okay. Right.</p> <p>16 Q. Where in your report, Dr Moy, do you substantiate your</p> <p>17 conclusion in your executive summary? Where do you show</p> <p>18 that the reasoning behind the view you express here that</p> <p>19 Oyo-5 suffered premature gas breakthrough caused by the</p> <p>20 operator not following internationally applicable</p> <p>21 Petroleum Industry Practices and Standards?</p> <p>22 A. From my point of view, as a reservoir engineer, looking</p> <p>23 at this field it is immediately apparent that coning</p> <p>24 could be an issue. That it has to be investigated. And</p> <p>25 I know, although I don't have the reference, that in</p> <p style="text-align: center;">Page 31</p>
<p>1 gas coning and how that can affect recovery. It's very</p> <p>2 important that you look at that.</p> <p>3 Q. Okay. But if I can maybe put it this way,</p> <p>4 Stephenson Harwood didn't ask you, did they, to express</p> <p>5 your professional opinion on what the cause of the gas</p> <p>6 ingress into Oyo-5 was?</p> <p>7 A. Well, that would come under point 1 --</p> <p>8 Q. Okay, you think that comes under --</p> <p>9 A. -- does it have any unusual or particular attributes</p> <p>10 that should have been taken into account? The fact that</p> <p>11 it's -- I mean, with respect to my colleagues over there</p> <p>12 or -- they are not reservoir engineers --</p> <p>13 Q. No.</p> <p>14 A. -- and so -- however, certainly point 1 here would cover</p> <p>15 the view that you would have to look at the propensity</p> <p>16 or the chance of gas coning in a reservoir like this.</p> <p>17 So if this reservoir was saturated so it's above the</p> <p>18 bubble point, there's no gas cap, it wouldn't be</p> <p>19 an issue. But the fact as a reservoir engineer when you</p> <p>20 see that there is a gas cap present and it is sizeable,</p> <p>21 you need to establish what the chances of gas coning are</p> <p>22 and what are the controlling factors over there.</p> <p>23 Q. Okay. Well, we'll look at what you actually did in your</p> <p>24 report, and at the moment I am just talking about the</p> <p>25 first report that you served in these proceedings.</p> <p style="text-align: center;">Page 30</p>	<p>1 this report I mention that an operator would have to do</p> <p>2 a coning study.</p> <p>3 And what do I mean by coning study? It is the kind</p> <p>4 of fine grid simulation of using a simulation with fine</p> <p>5 grid cells that are the kinds that I've presented on the</p> <p>6 slides. That would be a localised model, which would</p> <p>7 enable the operator to determine what are the</p> <p>8 controlling factors of gas coning, and how are those</p> <p>9 affected by the range of parameters that we might</p> <p>10 encounter. Now --</p> <p>11 Q. Sorry, if I can stop you there. That's a different</p> <p>12 point, isn't it? I'm not asking about the coning study</p> <p>13 about critical range, what I am asking about is what</p> <p>14 caused the gas ingress into Oyo-5 --</p> <p>15 A. Well, that's --</p> <p>16 Q. -- did it come through the cementing? Was it the result</p> <p>17 of production?</p> <p>18 A. Well, from a reservoir engineering point of view, it has</p> <p>19 to be investigated, and in terms of not following</p> <p>20 internationally acceptable petroleum industry standards,</p> <p>21 I would imagine any prudent operator in their reservoir</p> <p>22 engineering department would have done a study like</p> <p>23 this. To not do so I think is a bit -- well, it's not</p> <p>24 wise.</p> <p>25 Q. Sorry, just to be clear, Dr Moy, are you now saying that</p> <p style="text-align: center;">Page 32</p>

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<p>1 the breach of internationally accepted -- sorry,</p> <p>2 internationally acceptable Petroleum Industry Practices</p> <p>3 and Standards -- maybe we can just use the term "PIPS"</p> <p>4 that I know some of the other experts in this</p> <p>5 arbitration have used.</p> <p>6 So are you saying, Dr Moy, that the breach of PIPS,</p> <p>7 to use the acronym, was the fact that there was no</p> <p>8 coning study?</p> <p>9 A. If you're asking me whether one could go to a document</p> <p>10 that says if you're an operator and you have a field</p> <p>11 like this you have to do a coning study, I don't think</p> <p>12 there is one, but it's fairly, or should be, common</p> <p>13 knowledge that if you're a reservoir engineer and you</p> <p>14 were looking at a field like this that this is one of</p> <p>15 the things you would have to do.</p> <p>16 Q. So if we look back at your paragraph 2.1.1.1, when you</p> <p>17 say that, in your view, the gas breakthrough into Oyo-5</p> <p>18 was caused by NAE not having followed PIPS, was -- you</p> <p>19 know, the breach that you're referring to there, the</p> <p>20 alleged breach, is the absence of the coning study, is</p> <p>21 that what you're saying?</p> <p>22 A. I can only really talk about the reservoir engineering</p> <p>23 side. And when I read the field development plan for</p> <p>24 Oyo -- the Oyo development, it was very deficient in the</p> <p>25 reservoir engineering side, and there were very serious</p> <p style="text-align: center;">Page 33</p>	<p>1 A. That maybe the reference to the field development plan.</p> <p>2 But let's just have a quick look, if you've got the</p> <p>3 time.</p> <p>4 Q. I am conscious that we are under a little bit of time</p> <p>5 pressure today --</p> <p>6 A. Okay, well --</p> <p>7 Q. -- Dr Moy, as you're aware, but by all means take</p> <p>8 a quick flick and we'll see if we can find it quickly,</p> <p>9 but if not I think we will move on.</p> <p>10 A. If it's not there, then it will be certainly related to</p> <p>11 that comment that I've made. Well, yes -- hold on,</p> <p>12 let's have a look here. Okay.</p> <p>13 Q. Well, it's not --</p> <p>14 A. No, here it is.</p> <p>15 Q. You've found it?</p> <p>16 A. 2115 at the bottom.</p> <p>17 Q. 2115 --</p> <p>18 A. "Yet at no point in the reservoir engineering section</p> <p>19 describing the simulation work, nor in the resulting FDP</p> <p>20 is this mentioned, RC3 field development plan for the</p> <p>21 Oyo field April 2009."</p> <p>22 Q. Okay, so that's one brief reference in your executive</p> <p>23 summary --</p> <p>24 A. Well, how many references would I need?</p> <p>25 Q. Well, you've gone into a lot more detail in the joint</p> <p style="text-align: center;">Page 35</p>
<p>1 omissions, both in the subsurface assessment and in the</p> <p>2 reservoir engineering assessment. And so for me I was</p> <p>3 really surprised that based on those documents a company</p> <p>4 would go ahead and invest 150 million in a well and</p> <p>5 develop a field without doing something a bit more</p> <p>6 robust, especially for a company like Eni, who have</p> <p>7 thousands of people in their head office whose task</p> <p>8 purely every day is to look at the minutiae of these</p> <p>9 technical problems.</p> <p>10 Q. Yes, and that's something that you've devoted a section</p> <p>11 of the joint report to. Do you discuss that in your</p> <p>12 original report?</p> <p>13 A. Yes, I do, actually. I mention the field development</p> <p>14 plan. I mention that I think it's deficient. I --</p> <p>15 Q. Can you point me to that reference?</p> <p>16 A. Well, I can, but I would probably need a bit of time to</p> <p>17 find it.</p> <p>18 Q. I am happy to give you a couple of minutes. Because</p> <p>19 from what I can see, you say in your executive summary,</p> <p>20 and this is still paragraph 2.1.1.1, that:</p> <p>21 "Reservoir engineering work that has been reported</p> <p>22 and of which I am aware appears to be of a particularly</p> <p>23 low standard."</p> <p>24 But you don't seem to go on in your first report to</p> <p>25 explain why you think that is.</p> <p style="text-align: center;">Page 34</p>	<p>1 report on this issue. But that's fine.</p> <p>2 A. Can I explain to the Tribunal why it was necessary to go</p> <p>3 into detail?</p> <p>4 THE CHAIRMAN: Briefly.</p> <p>5 A. Briefly. Okay. In the original report that's pretty</p> <p>6 much a passing comment. Mr Filippi elaborated a little</p> <p>7 bit on that, saying that it was fit for purpose and</p> <p>8 a robust document. And we felt that -- I felt certainly</p> <p>9 that it was -- those -- that description certainly did</p> <p>10 not fit the document that I saw and, therefore, felt it</p> <p>11 necessary to describe point by point the deficiencies in</p> <p>12 that document.</p> <p>13 MS WILFORD: Okay.</p> <p>14 A. In the joint report.</p> <p>15 Q. Okay. Let's move on. We discussed the three things</p> <p>16 that Stephenson Harwood asked you to do in your initial</p> <p>17 instructions, and I am going to take those out of</p> <p>18 sequence, and the one I would like to talk about first,</p> <p>19 and I think we can probably deal with it quite briefly,</p> <p>20 is the third point that Stephenson Harwood asked you to</p> <p>21 address, and that's the one about what effect did the</p> <p>22 difficulties with reinjecting gas have on the reservoir</p> <p>23 pressure of the Oyo reservoir.</p> <p>24 A. Mmm-hmm.</p> <p>25 Q. Now, the section in which you deal with this in your</p> <p style="text-align: center;">Page 36</p>

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<p>1 first report starts on internal page 45 of the report, 2 if you could turn to that. That's page 166 of the 3 bundle. 4 A. Yes. 5 Q. So if we look at paragraph 4.3.2.6, you note the fact 6 that the initial reservoir pressure measured in Oyo-5 7 before production from Oyo-5 started was in the region 8 of 3,000 psia. 9 A. Correct. 10 Q. Yes. And I don't think that's in dispute that it was 11 around that figure. 12 However, what you don't seem to do anywhere in this 13 section, Dr Moy, is to put forward a figure for what you 14 say the reservoir pressure was at the end of NAE's 15 period of operatorship of the field. So if I can put it 16 another way, what you don't seem to do anywhere is to 17 put a figure on what you say the loss of reservoir 18 pressure was due to NAE supposedly not having reinjected 19 enough gas into the reservoir. 20 A. Mmm-hmm. 21 Q. Okay? 22 A. Mmm-hmm. 23 Q. You accept that's correct, you don't -- 24 A. It's -- that's not expressly in the report, so -- 25 Q. Yes, okay. So there is, therefore, no evidence in your</p> <p style="text-align: center;">Page 37</p>	<p>1 MR GUNNING: I think it has gone. I think that may be 2 a question for us, and I think -- sorry. 3 THE CHAIRMAN: I just -- 4 MR GUNNING: Yes, sorry. I'm sorry, I didn't mean to -- 5 THE CHAIRMAN: I thought that Dr Moy would be in a position 6 to tell me, but I think if you've answered it -- have 7 the lawyers answered it? 8 MR NESBITT: It's a point that we make in our pre-hearing 9 submissions that there is no quantified and never has 10 been any quantified claim relating to a drop in 11 reservoir pressure. So I think the purpose of this line 12 of questioning is just to -- although Dr Moy alludes to 13 it, there is -- nothing comes out of it, it is 14 irrelevant. 15 THE CHAIRMAN: Because it got my scientific interest as to 16 whether it had an effect on the reservoir, but if 17 nothing comes from it -- 18 MS WILFORD: Exactly, sir, and that's why I said I thought 19 we could probably deal with this line of questioning 20 briefly, which I think we can. 21 MR GUNNING: I ought to confirm nothing comes out of it. 22 Mr Nesbitt is right. 23 MS WILFORD: Very good. So we're all on the same page about 24 that. 25 One last point on gas flaring before we move on from</p> <p style="text-align: center;">Page 39</p>
<p>1 report and no evidence before the Tribunal that there 2 was any such drop in reservoir pressure that was 3 attributable to NAE having flared gas rather than 4 reinjected it. And the reason I mention this, Dr Moy, 5 is that when you come to run your "but for" forecasts of 6 production from the well that would have occurred in the 7 "but for" world, you assume at that stage, don't you, 8 historical gas reinjection rates? 9 A. I do, yes. 10 Q. Okay. Fine. So just to follow on from that, so when 11 you're running your "but for" forecasts you are not 12 assuming that anything different would have happened in 13 relation to reservoir pressure that was actually the 14 case? 15 A. That's the case. I've used -- well, the pressure is 16 simulated based on what comes out of the reservoir and 17 what goes back in. 18 Q. Okay. Could you turn back -- 19 THE CHAIRMAN: Excuse me -- 20 MS WILFORD: Sorry. 21 THE CHAIRMAN: -- as far as I've understood it, one point in 22 the proceedings I understood there was an issue about 23 the damage to the reservoir from the failure to reinject 24 the gas. Is that still an issue or has that 25 disappeared?</p> <p style="text-align: center;">Page 38</p>	<p>1 this section of your report, could you turn on page 165 2 of the bundle, that's internal page 44 of your report, 3 to paragraph 4.3.2.4. There you say: 4 "Oyo-4 injection ceased on 2 June 2013 due to 5 problems with the injection valve on its subsea well 6 head and have not been resumed." 7 And you also represent this diagrammatically in the 8 following figure 4.16. 9 So just to confirm what that means, Dr Moy, isn't 10 it, that after Allied and their affiliates took over the 11 operatorship of the Oyo field they only continued to 12 reinject gas up until June 2013 and then it stopped? 13 A. Well, it wasn't their choice -- 14 Q. I'm not -- 15 A. -- if they had a mechanical failure on the well head 16 valve. 17 Q. I understand that. 18 A. So, yes, obviously that didn't happen while they were 19 operator. 20 Q. So they suffered, if I can put it this way, mechanical 21 issues that stopped them from reinjecting the gas? 22 A. Yes, 300 metres below the sea surface. 23 Q. Yes. But -- okay. So where it leaves I think, Dr Moy, 24 this is quite a short point, is that since that date, 25 since June 2013, other than very small quantities of gas</p> <p style="text-align: center;">Page 40</p>

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<p>1 that might have been used as fuel, the operator of the</p> <p>2 Oyo field, which is -- I forget exactly which entity,</p> <p>3 I think it seems to a change a little bit, but the</p> <p>4 respondents and their affiliates have flared all of the</p> <p>5 gas that has been produced from the field as far as</p> <p>6 we're aware?</p> <p>7 A. My understanding is that produced gas, apart, as you</p> <p>8 point out fuel, has to go somewhere and, therefore, as</p> <p>9 far as I'm aware, it is being flared.</p> <p>10 Q. Okay. Very good.</p> <p>11 That was all I wanted to say on gas flaring and</p> <p>12 reservoir pressure.</p> <p>13 So if we could move on to the first instruction that</p> <p>14 Stephenson Harwood gave you, which was to give your</p> <p>15 assessment of the Oyo reservoir. If we could turn to</p> <p>16 where you deal with this in your report, this is</p> <p>17 section 4 of your initial report, which starts on</p> <p>18 internal page 14 or page 135 of the bundle.</p> <p>19 So as I said, you were asked to give your assessment</p> <p>20 of the reservoir, and in particular what you were asked</p> <p>21 to do was to give your assessment of:</p> <p>22 "Whether the reservoir has any unusual or particular</p> <p>23 attributes that should have been taken into account in</p> <p>24 the drilling and production from Oyo-5?"</p> <p>25 A. Yes.</p> <p style="text-align: center;">Page 41</p>	<p>1 structure and petrophysical characteristics are typical</p> <p>2 of those of other channel sand."</p> <p>3 A. Yes.</p> <p>4 Q. And I don't think you point out in this section anywhere</p> <p>5 the existence of dipping beds in the reservoir?</p> <p>6 A. No.</p> <p>7 Q. No. So you didn't identify those when you were asked to</p> <p>8 give your initial assessment of the Oyo reservoir?</p> <p>9 A. No.</p> <p>10 Q. And there is -- in fact I think I understand, Dr Moy,</p> <p>11 it's the case, isn't it, that the model you've used</p> <p>12 doesn't actually include the dipping beds?</p> <p>13 A. I think we saw yesterday that none of the models have</p> <p>14 dipping beds.</p> <p>15 Q. But the one you used didn't.</p> <p>16 A. The D&M model does not have dipping beds, no.</p> <p>17 Q. There is also discussion anywhere in this section 4 of</p> <p>18 your report about any sealing faults?</p> <p>19 A. No.</p> <p>20 Q. Okay. So --</p> <p>21 A. I would add that to some extent my -- it's not mentioned</p> <p>22 in here, but it's part of the model that D&M sent that</p> <p>23 the fault is sealing in the model. I had some of that</p> <p>24 data related to the west of the field and I concentrated</p> <p>25 on looking at the western side. At the time, this issue</p> <p style="text-align: center;">Page 43</p>
<p>1 Q. And you sort of go into this over four pages. But if</p> <p>2 I can summarise, it seems to me that your answer is</p> <p>3 effectively "No, there aren't any particular attributes</p> <p>4 that should have been taken into account", isn't it,</p> <p>5 because you essentially say this is a typical Nigerian</p> <p>6 reservoir?</p> <p>7 A. Well, does that mean that one should not, therefore,</p> <p>8 understand it to a particular standard?</p> <p>9 Q. I'm not saying that.</p> <p>10 A. So, for example, okay, it's a gas cap reservoir. You</p> <p>11 have an indication of permeability. You've got well</p> <p>12 data, log data. To then go to the next step you need to</p> <p>13 understand how that field may perform. So in that</p> <p>14 sense, it's quite normal and comparable with similar</p> <p>15 reservoirs with a gas cap. That does not mean to say</p> <p>16 that you, therefore -- there is a formula to develop it</p> <p>17 in the field that allows you to drill these wells</p> <p>18 without doing the appropriate studies.</p> <p>19 Q. But just going back to what you've said in your report,</p> <p>20 and maybe it would help if I took you to your</p> <p>21 conclusion, which is at paragraph 4.1.3.1, and your</p> <p>22 conclusion was:</p> <p>23 "In my view, based on the geological and seismic</p> <p>24 data available, the Oyo field is typical of high quality</p> <p>25 channel sand reservoirs found elsewhere in Nigeria. The</p> <p style="text-align: center;">Page 42</p>	<p>1 about whether that fault sealing was not really in my</p> <p>2 mind as an issue as it's become apparent it actually --</p> <p>3 Q. Well, exactly, and that was simply my point, that at the</p> <p>4 time when you were preparing your first report in these</p> <p>5 proceedings you didn't think that the sealing fault was</p> <p>6 of such significance that you needed to mention it in</p> <p>7 your assessment of the reservoir?</p> <p>8 A. It was sealing.</p> <p>9 Q. But you haven't mentioned it is all I am saying.</p> <p>10 A. Okay, I haven't mentioned it.</p> <p>11 Q. Okay. So your position in the first report that you</p> <p>12 submitted, Dr Moy, seems to be essentially there were no</p> <p>13 particular features of the reservoir that NAE or Eni</p> <p>14 should have taken into account in the drilling and</p> <p>15 production of Oyo-5. You certainly don't identify any?</p> <p>16 A. That doesn't mean to say they shouldn't have done their</p> <p>17 studies and their homework. Okay. What kind of</p> <p>18 features -- we've seen that coning is -- it occurs even</p> <p>19 if your reservoir is completely uniform. It doesn't</p> <p>20 need dipping beds invoked to bring gas down into the</p> <p>21 well. It doesn't need a sealing fault down the middle.</p> <p>22 It does need a prudent operator to do the</p> <p>23 appropriate studies to determine based on the</p> <p>24 uncertainties that are clearly apparent in the</p> <p>25 petrophysical properties of the reservoir to do these</p> <p style="text-align: center;">Page 44</p>

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<p>1 kinds of studies. So, for example, although it is</p> <p>2 uncertain as to the permeability range, we have a range,</p> <p>3 we don't know exactly what the permeability is, the fact</p> <p>4 that you are getting potentially gas breakthrough at</p> <p>5 30 days would immediately flag up the point that there</p> <p>6 is no way you can bring on a well in this reservoir of</p> <p>7 15,000 barrels of oil a day.</p> <p>8 Q. I am just talking about the features of the reservoir</p> <p>9 for now. Okay?</p> <p>10 A. Okay.</p> <p>11 Q. So what I would like to do next is compare what you've</p> <p>12 said in your initial report with what you say on this</p> <p>13 issue in the joint report. So if you could turn to</p> <p>14 bundle E3, tab 5 --</p> <p>15 A. Right.</p> <p>16 Q. -- and then if you could turn to page 136 of the bundle</p> <p>17 which is internal page 21. Now what, as I'm sure you'll</p> <p>18 recognise, Dr Moy, this table is a summary of the issues</p> <p>19 that Mr Filippi set out at the time you were preparing</p> <p>20 your joint report of the issues that he saw as being in</p> <p>21 dispute and you've both give your view as to what the</p> <p>22 answer is to each of these issues, and the one I am</p> <p>23 interested in at the moment is item 6 in the table,</p> <p>24 which is the question:</p> <p>25 "Was the gas ingression in Oyo-5 the result of</p> <p style="text-align: right;">Page 45</p>	<p>1 Like. You say:</p> <p>2 "The Oyo field does not discuss the presence of</p> <p>3 steeply dipping beds within the reservoir or consider</p> <p>4 the potential implications for the dynamic behaviour of</p> <p>5 the field."</p> <p>6 Yes.</p> <p>7 Q. This is all new in the joint report, isn't it, Dr Moy?</p> <p>8 In your first report your view was essentially:</p> <p>9 "There are no particularly significant features of</p> <p>10 the reservoir that Eni should have taken into account."</p> <p>11 And in the joint report you have suddenly identified</p> <p>12 these dipping beds?</p> <p>13 A. I haven't suddenly identified them. I've become aware</p> <p>14 of the data that was present from the Oyo-1 core. It</p> <p>15 was present in 1996. Considering that Eni have many,</p> <p>16 many professionals looking at this, the fact that they</p> <p>17 just ignored this data and that their model in both 2008</p> <p>18 and 2010 does not have dipping beds, they've made no</p> <p>19 attempt into corporate any of this data. In fact, data</p> <p>20 from the second sidetrack -- there are two sidetracks in</p> <p>21 Oyo-1 -- was completely ignored by Eni, even though they</p> <p>22 are 2 or 3 metres apart. So in retrospect perhaps</p> <p>23 I should have included a discussion on the dipping beds</p> <p>24 in my first report.</p> <p>25 Q. But you didn't.</p> <p style="text-align: right;">Page 47</p>
<p>1 reservoir characteristics?"</p> <p>2 A. Yes.</p> <p>3 Q. What you say there is:</p> <p>4 "I believe it was a combination of reservoir</p> <p>5 characteristics and poor production management. The</p> <p>6 reservoir characteristics (steeply dipping beds with</p> <p>7 fine scale sand and shale features) were known about in</p> <p>8 1996 from Oyo-1 data. The lower than expected</p> <p>9 permeability which can control the onset of coning</p> <p>10 should have been apparent from the Oyo-5 well test.</p> <p>11 None of these were incorporated into Eni thinking and</p> <p>12 planning."</p> <p>13 And I think that's essentially the point you were</p> <p>14 trying to make just now, Dr Moy, about, you know, in</p> <p>15 your view Eni should have carried out more studies</p> <p>16 before going ahead and producing the well?</p> <p>17 A. Yes.</p> <p>18 Q. Yes. Okay. So there you've identified these steeply</p> <p>19 dipping beds with fine scale sand and shale features as</p> <p>20 a relevant feature of the reservoir. And then if we</p> <p>21 could turn on a few pages to page 156 of the bundle,</p> <p>22 that's in bundle page 41 of the joint report, you</p> <p>23 discuss these in a bit more detail, and you sort of</p> <p>24 follow the same line of criticising Eni for not having</p> <p>25 taken these beds into account earlier, if you.</p> <p style="text-align: right;">Page 46</p>	<p>1 A. I didn't.</p> <p>2 Q. Okay.</p> <p>3 A. But it doesn't mean to say that the data doesn't exist.</p> <p>4 It is important, I suppose, and it was known in 1996.</p> <p>5 Q. But you didn't pick up on it at the time of your first</p> <p>6 report because you --</p> <p>7 A. I wasn't -- I wasn't aware of it until later, when I was</p> <p>8 looking through.</p> <p>9 Q. Okay. So what you seem to be doing here in the joint</p> <p>10 report is you seem to be putting forward, if I can put</p> <p>11 it this way, a theory to explain the cause of the gas</p> <p>12 ingression, which is that Eni didn't do sufficient</p> <p>13 subsurface work before commencing production from the</p> <p>14 well?</p> <p>15 A. I would have thought that that's fairly apparent that</p> <p>16 they didn't. I mean, it doesn't take very long to set</p> <p>17 up a model to do a coning study. That, as I said,</p> <p>18 assumes a constant uniform permeability irrespective of</p> <p>19 dipping beds. You could add those in as a sensitivity.</p> <p>20 Q. But, again, that doesn't feature in your first report,</p> <p>21 other than the brief references that we mentioned</p> <p>22 earlier.</p> <p>23 A. I've mentioned in my first report the importance of</p> <p>24 doing a coning study using a fine grid model. I haven't</p> <p>25 elaborated on that. I think it is mentioned in one of</p> <p style="text-align: right;">Page 48</p>

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<p>1 two paragraphs in passing?</p> <p>2 Q. Okay. So just to be clear, the theory that you -- if</p> <p>3 I can put it that way -- the theory that you're</p> <p>4 advancing for the first time in your joint report is</p> <p>5 that the field development plan prepared by Eni's</p> <p>6 reservoir team in 2008 did not take into account these</p> <p>7 particular features of the reservoir, namely these</p> <p>8 steeply dipping beds.</p> <p>9 A. I think I am advancing the idea that they didn't do</p> <p>10 their homework sufficiently, and I have mentioned that</p> <p>11 in the first report, whether they are steeply dipping</p> <p>12 beds or not it is quite clear that the technical work</p> <p>13 that they carried out was substandard and insufficient.</p> <p>14 Q. Are you aware, Dr Moy, that there is no pleaded claim in</p> <p>15 this arbitration that this supposed lack of Eni's</p> <p>16 reservoir team having done sufficient homework that this</p> <p>17 is in any way a breach of practices and standards?</p> <p>18 A. I am just giving my professional view as a reservoir</p> <p>19 engineer.</p> <p>20 Q. Okay. So this is just your professional view as</p> <p>21 a reservoir engineer. Fine.</p> <p>22 Let's move on to another topic, which we're going to</p> <p>23 take rather more time on, which is your reservoir model</p> <p>24 that you used. And when I say "yours", just to be clear</p> <p>25 on the terminology, we'll talk about this a bit, but</p> <p style="text-align: center;">Page 49</p>	<p>1 a robust model, then the projection may not be so</p> <p>2 accurate."</p> <p>3 Would you agree with that?</p> <p>4 A. Yes, within the uncertainties of modelling and the</p> <p>5 limitations of reservoir simulation, yes.</p> <p>6 Q. Yes. Yes. Absolutely. So, I mean, in fact you were</p> <p>7 here yesterday when Mr Gunning's questions towards</p> <p>8 Mr Filippi were directed at an attempt to discredit</p> <p>9 Mr Filippi's model because of lack of robustness of that</p> <p>10 model. And that goes to that point, doesn't it, that if</p> <p>11 the model isn't sufficiently accurate, the projections</p> <p>12 resulting from it won't be reliable either?</p> <p>13 A. Well, there are differences; okay? So one would hope</p> <p>14 that structurally a model represents what you see in the</p> <p>15 seismic. So the dipping beds issue might be one or from</p> <p>16 the core. There is information from the logs. So what</p> <p>17 do I mean by that? In particular porosity and water</p> <p>18 saturation. Quantities that are measured directly</p> <p>19 should be honoured in the model. There are other</p> <p>20 parameters for which you don't -- you can't measure that</p> <p>21 directly in the well, so rel perm information, which can</p> <p>22 only be done from core samples, and permeability, which</p> <p>23 you can measure in a little core, core plugs, and you</p> <p>24 can determine permeability over a wider scale from</p> <p>25 a well test, but we've seen that there is a range of</p> <p style="text-align: center;">Page 51</p>
<p>1 obviously you received this model from -- it was</p> <p>2 originally created by DeGolyer and MacNaughton --</p> <p>3 A. That's correct, yes.</p> <p>4 Q. -- who I think, just by way of shorthand, we can happily</p> <p>5 refer to as D&M. We've heard DeGolyer and MacNaughton</p> <p>6 quite a lot. And you used this model, subject to</p> <p>7 certain modifications, which we'll come on and discuss,</p> <p>8 to run the forecasts of production from the Oyo field,</p> <p>9 which, as we've discussed, you then passed to Mr Taylor</p> <p>10 for him to use in his damages calculations.</p> <p>11 A. That's correct.</p> <p>12 Q. So I think you've obviously been here for quite a lot of</p> <p>13 this hearing, Dr Moy, and I think you were here when</p> <p>14 Mr Rotondi gave his evidence.</p> <p>15 A. I was, yes.</p> <p>16 Q. And do you recall that Mr Gunning asked Mr Rotondi the</p> <p>17 question:</p> <p>18 "So if there are significant errors in the model,</p> <p>19 that would upset the accuracy of the projections?"</p> <p>20 A. Vaguely sounds familiar, yes.</p> <p>21 Q. There's been a lot that has been said over the last two</p> <p>22 weeks, so I entirely understand if you don't remember</p> <p>23 that particular question. But the response that</p> <p>24 Mr Rotondi gave to that question was:</p> <p>25 "This is always the case. If you don't have</p> <p style="text-align: center;">Page 50</p>	<p>1 uncertainties in the perm. But, yes --</p> <p>2 Q. I don't think anybody would deny that reservoir</p> <p>3 modelling is inherently dealing with uncertainties,</p> <p>4 because what you're dealing with is something that's</p> <p>5 happening a long way below the subsurface. I mean, I am</p> <p>6 sure you will recall Mr Filippi's diagram from his</p> <p>7 slides that demonstrated just, you know, how far below</p> <p>8 the subsurface these wells are.</p> <p>9 A. Yes.</p> <p>10 Q. And you are obviously working with whatever information</p> <p>11 you have available about the reservoir, aren't you, but</p> <p>12 that's inevitably going to be limited?</p> <p>13 A. Oh yes.</p> <p>14 Q. So you are inherently working with uncertainties.</p> <p>15 A. That's true.</p> <p>16 Q. But isn't the point about the history match -- and I am</p> <p>17 sorry to labour this point a little bit, but the history</p> <p>18 match is really quite important, the concept of history</p> <p>19 match, the point about the history match is that you are</p> <p>20 trying to, as best you can, with the model replicate</p> <p>21 what you know about the historical behaviour of the well</p> <p>22 as accurately as you can based on the available</p> <p>23 information?</p> <p>24 A. One hopes to do that, yes.</p> <p>25 Q. That's the aim. And, therefore, the more reliable the</p> <p style="text-align: center;">Page 52</p>

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<p>1 model -- you know, put it -- the reliability of the</p> <p>2 model is important particularly for forecasts because,</p> <p>3 would you agree with me, Dr Moy, if you can't reproduce</p> <p>4 what has happened in the past in the model accurately,</p> <p>5 then you won't be projecting the future accurately</p> <p>6 either?</p> <p>7 A. Yes.</p> <p>8 Q. Yes? And I think it should also be uncontroversial that</p> <p>9 the principal way in which you assess whether the model</p> <p>10 is reliable is by looking at the history match?</p> <p>11 A. It's one of the ways, yes, of course.</p> <p>12 Q. Yes. Okay. Fine. And that's something that Mr Filippi</p> <p>13 mentioned in his presentation yesterday and he showed</p> <p>14 the Tribunal, and I know you disagree with the</p> <p>15 interpretation of the history match, but just to link</p> <p>16 everything together for the benefit of the Tribunal,</p> <p>17 I am sure they will recall Mr Filippi's slides, which</p> <p>18 set out the diagrams, and effectively you see how well</p> <p>19 one line tracks another, one line being historical</p> <p>20 performance and the other line being how well it is</p> <p>21 matched by the simulation?</p> <p>22 A. I saw that yesterday, yes.</p> <p>23 Q. Okay. So turning to the model that you used, Dr Moy.</p> <p>24 As we've discussed, it was a model that was built by</p> <p>25 D&M?</p> <p style="text-align: right;">Page 53</p>	<p>1 Q. -- where you discuss the model that you used, and</p> <p>2 specifically I am looking at paragraph, if I can just</p> <p>3 find it, 3.1.2.4, which is internal page 10 and page 131</p> <p>4 of the bundle.</p> <p>5 So what you say is that:</p> <p>6 "A number of Oyo simulation models were commissioned</p> <p>7 by the claimant Allied, Erin and partners. These</p> <p>8 represent an evolution in the understanding of the field</p> <p>9 and culminated in the 2014 D&M model."</p> <p>10 And then you go on to describe this model, and you</p> <p>11 say that:</p> <p>12 "The D&M model can be considered to be the closest</p> <p>13 and most accurate representation of the field and as</p> <p>14 such should be the most appropriate tool for</p> <p>15 understanding the behaviour of the field and Oyo-5 in</p> <p>16 particular."</p> <p>17 A. That's right.</p> <p>18 Q. And do you still stand by that statement?</p> <p>19 A. I do. In general, I do.</p> <p>20 Q. Okay. Do you know why -- do you know the background to</p> <p>21 the D&M model, Dr Moy? Do you know why it was created?</p> <p>22 A. I don't know.</p> <p>23 Q. Okay. Well, what I would like to do is have a look at</p> <p>24 that and the way I would like to do that is having</p> <p>25 a look at the report prepared by D&M to accompany the</p> <p style="text-align: right;">Page 55</p>
<p>1 A. Yes.</p> <p>2 Q. So it's not a model that you built yourself.</p> <p>3 A. Correct.</p> <p>4 Q. And, as I understand it, there have been various</p> <p>5 different versions of the D&M model, and indeed you</p> <p>6 refer to more than one version in your report.</p> <p>7 A. That's correct, yes.</p> <p>8 Q. Okay. So I think I am right in saying, but I am sure</p> <p>9 you will correct me if I'm not, that the model that you</p> <p>10 ultimately used is a sort of 2014 modification of</p> <p>11 a model that was built in 2013 by D&M?</p> <p>12 A. I believe that's the case. Two vintages, I suppose, of</p> <p>13 model. The one we received initially essentially the</p> <p>14 same structure but it didn't have -- although it had</p> <p>15 Oyo-7 and Oyo-8 in, they weren't the final locations.</p> <p>16 They had been put into the model before those wells were</p> <p>17 drilled. And then we received a later version, which</p> <p>18 was updated with the actual well locations and had been</p> <p>19 matched to the production -- had the history --</p> <p>20 historical production from Oyo-7 and 8 in it.</p> <p>21 Q. Okay.</p> <p>22 A. And that was probably from about 2014.</p> <p>23 Q. If I could ask you to turn back to your first report,</p> <p>24 Dr Moy, in bundle E2, tab 2 --</p> <p>25 A. Yes.</p> <p style="text-align: right;">Page 54</p>	<p>1 model, and that's in bundle G25 at tab 656.</p> <p>2 A. Okay.</p> <p>3 Q. I presume you've seen this document before, Dr Moy?</p> <p>4 A. I have, yes.</p> <p>5 Q. You have. So as we discussed a minute ago, it's the</p> <p>6 report that D&M created accompanying the model, if you</p> <p>7 like.</p> <p>8 A. That's correct.</p> <p>9 Q. So if you could turn to page 8 in the document.</p> <p>10 A. Mmm-hmm.</p> <p>11 Q. And this is their executive summary. So what D&M say</p> <p>12 when they are introducing this report, they are saying:</p> <p>13 "This report documents the results of the</p> <p>14 geophysical, petrophysical, geological and engineering</p> <p>15 studies of the Oyo central field in Nigeria. The</p> <p>16 purpose of this study was to estimate the OOIP [which is</p> <p>17 original oil in place] and OGIP [original gas in place]</p> <p>18 volumes and recommend a development plan for the Oyo</p> <p>19 central field using FFRM [which I understand stands for</p> <p>20 full field reservoir model]."</p> <p>21 So as Mr Filippi described, I think yesterday, what</p> <p>22 D&M were doing in 2013/2014 was to create a model that</p> <p>23 had an eye to the future, wasn't it? They were looking</p> <p>24 at sort of future development options for the Oyo</p> <p>25 central field?</p> <p style="text-align: right;">Page 56</p>

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<p>1 A. Yes.</p> <p>2 Q. Yes. Okay. And so they weren't really looking back in</p> <p>3 time at what had happened in Oyo-5.</p> <p>4 A. Well, that would be difficult to do the forward-looking</p> <p>5 unless you had a good understanding of what had happened</p> <p>6 in the past.</p> <p>7 Q. Well, we'll come on to what they did in relation to</p> <p>8 Oyo-5, but the point I am trying to make, Dr Moy, is</p> <p>9 that when D&M were producing this model they seem to</p> <p>10 have made certain assumptions about what happened in</p> <p>11 Oyo-5. Would you agree with that?</p> <p>12 A. I don't know what assumptions you mean.</p> <p>13 Q. Okay. Well, let's have a look at them. So if you could</p> <p>14 go back a page to page 7 --</p> <p>15 A. Yes.</p> <p>16 Q. -- so obviously this is the introductory wording to this</p> <p>17 report, and what D&M say is that they prepared this</p> <p>18 reservoir study at the request of CAMAC Energy.</p> <p>19 A. Yes.</p> <p>20 Q. And then under the heading "Source of information" what</p> <p>21 D&M say is:</p> <p>22 "Information used in the preparation of this report</p> <p>23 was obtained from CAMAC Energy Inc [defined as CAMAC].</p> <p>24 DeGolyer and MacNaughton consulted freely with the</p> <p>25 officers and employees of CAMAC and were given access to</p> <p style="text-align: center;">Page 57</p>	<p>1 missing D&M would be aware of it. And it's very</p> <p>2 difficult to falsify this raw data, apart from not</p> <p>3 giving it. So if a well has been drilled and there is</p> <p>4 no log data, then that would be a flag to the person</p> <p>5 doing the modelling that something was missing. But it</p> <p>6 would be very rare to give a data set that gave a skewed</p> <p>7 view because you're dealing with raw data, whether</p> <p>8 that's log or seismic.</p> <p>9 MS WILFORD: Mr Chairman, I am not quite sure where we are</p> <p>10 with timings, given the earlier start today, but I don't</p> <p>11 know whether now would be an appropriate time to break</p> <p>12 or whether you would rather that I continued a little</p> <p>13 while before we break?</p> <p>14 THE CHAIRMAN: No, I think now would be quite an appropriate</p> <p>15 time to break. Shall we take 15 minutes, and that,</p> <p>16 according to my calculation, gets us back at 11.10 am.</p> <p>17 Is that about right? Okay.</p> <p>18 Dr Moy, you're not to discuss your testimony with</p> <p>19 anyone during the break but you may have refreshments.</p> <p>20 A. Thanks.</p> <p>21 (10.51 am)</p> <p>22 (A short break)</p> <p>23 (11.15 am)</p> <p>24 MR NESBITT: Yes, Mr Chairman, with the Tribunal's</p> <p>25 indulgence I am going to relieve Ms Wilford from now on,</p> <p style="text-align: center;">Page 59</p>
<p>1 such accounts, records, geological and engineering</p> <p>2 reports and other data as were requested for</p> <p>3 examination. All information furnished by CAMAC was</p> <p>4 accepted as represented."</p> <p>5 A. Right.</p> <p>6 Q. So how I read that -- and this is probably my lawyer's</p> <p>7 reading, Dr Moy, and I'm sure you'll tell me if it</p> <p>8 disagrees from your engineering point of view -- is that</p> <p>9 if CAMAC when commissioning this report had told D&M</p> <p>10 something, D&M are representing that it is correct. D&M</p> <p>11 are just saying here "We are relying on the information</p> <p>12 that has been given to us by CAMAC"?</p> <p>13 A. That's usual -- the usual practice for a consultancy</p> <p>14 that is building a simulation of a field. The company</p> <p>15 commissioning the modelling would give the data to the</p> <p>16 company that's doing the modelling and, of course, there</p> <p>17 is an implicit understanding that they are giving them</p> <p>18 truthful data. But I would imagine that for</p> <p>19 an experienced company like D&M you would expect to have</p> <p>20 certain things. So you would expect to have the seismic</p> <p>21 cube with the data that you could look, potentially</p> <p>22 seismic interpretation that had been done that you could</p> <p>23 check so that your structure that it was correct,</p> <p>24 certainly all the well trajectories, all the well log</p> <p>25 information. So certainly if there was something</p> <p style="text-align: center;">Page 58</p>	<p>1 if that's acceptable.</p> <p>2 THE CHAIRMAN: Absolutely.</p> <p>3 Cross-examination by MR NESBITT</p> <p>4 MR NESBITT: Thank you.</p> <p>5 Dr Moy, just before the break Ms Wilford had taken</p> <p>6 you to the report which -- the February 2014 report by</p> <p>7 D&M, which you should hopefully still have open in front</p> <p>8 of you at tab 656.</p> <p>9 A. I do, yes.</p> <p>10 Q. And Ms Wilford had directed you to the wording which</p> <p>11 indicated that all of the information that had been</p> <p>12 provided by CAMAC for the purposes of D&M preparing the</p> <p>13 report was "accepted as represented", is the phrase, and</p> <p>14 I think you've suggested that that was quite usual.</p> <p>15 A. Mmm-hmm.</p> <p>16 Q. Related to that, if you turn to page 9 of the document,</p> <p>17 it is page 9 of the bundle, page 4 of the document, the</p> <p>18 final paragraph on that page refers to the early gas</p> <p>19 breakthrough, about halfway through:</p> <p>20 "Production performance showed early and significant</p> <p>21 gas breakthrough and increased water cut, all of which</p> <p>22 curtailed the oil productivity of the well."</p> <p>23 Referring to Oyo-5. Do you see that?</p> <p>24 A. I do, yes.</p> <p>25 Q. And D&M then go on to say:</p> <p style="text-align: center;">Page 60</p>

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<p>1 "The likely reasons for such performance could be 2 mechanical problems, such as poor cementation, as well 3 as local gas cusping and water coning. To minimise 4 these efforts better production practices are 5 recommended for future development wells. Such 6 practices could include better cementation, the use of 7 inflow control devices and more conservative drawdown 8 for the producers."</p> <p>9 So this shows, doesn't it, that D&M were simply 10 indicating -- sorry, accepting the indication given to 11 them by CAMAC that the early gas ingress into Oyo-5 12 was in some way attributable to these features?</p> <p>13 A. Why would they make that conclusion? I don't -- 14 Q. Sorry, why would who make that conclusion? 15 A. Sorry, I don't want to seem difficult, but if you were 16 looking at a reservoir like this and you had an issue 17 with a well that was particularly gassy, you would, as 18 an engineer anyway, look at these options, certainly the 19 gas cusping. You would need to -- so the fact that 20 they've mentioned it does not imply that it's a piece of 21 information that CAMAC have told them to put in here. 22 Q. Have you read this report? 23 A. I have, yes. 24 Q. And is there anything in it to indicate that they 25 actively investigated the cause of the gas incursion?</p> <p style="text-align: center;">Page 61</p>	<p>1 Q. But Mr Filippi had no difficulty in doing it. 2 A. Well, I can't -- we've seen some of the issues yesterday 3 with the Filippi model and, you know, it is -- you can 4 build a model in a month but whether it's a true 5 representation of the reservoir is a different issue. 6 Q. So you side with all of the attempts that Mr Gunning 7 made to undermine the robustness and reliability of 8 Mr Filippi's model yesterday, seems to be what you're 9 saying. 10 A. I think all the issues that were presented yesterday are 11 genuine and certainly issues which I felt weren't 12 properly answered yesterday. 13 Q. Well, going back to -- 14 A. I mean, let's put this in context here. The issue about 15 the log porosity and the semantic discussion between 16 pore volume and porosity, it isn't rocket science how 17 the two are related. It seems you have a well, you've 18 measured on the log the porosity, and your model -- that 19 well is located in a grid cell, and to convert from 20 porosity to pore volume you take the volume of the grid, 21 the cell, and you multiply it by the porosity. It is 22 a simple relation. It isn't rocket science. 23 So why would one take log data and apply a global 24 reduction factor to a property that is measured in the 25 well and a property which the variability over the field</p> <p style="text-align: center;">Page 63</p>
<p>1 A. No, there is nothing. They haven't -- the model that is 2 described here is the one that I have used. D&M did not 3 take a -- part of that model and refine the grid to 4 investigate the sensitivity of coning. 5 Q. So I think we've established, you didn't build -- unlike 6 Mr Filippi, you didn't build your own model, you used 7 the D&M model -- 8 A. I did, that's right. 9 Q. -- and you adapted it, for want of a better word. 10 A. Mmm-hmm. 11 Q. Were you happy to use that model? 12 A. I considered that it was the best option in the 13 circumstances. 14 Q. Did you consider building your own model? 15 A. To build a model properly is a task which takes 16 a considerable amount of time. You have to look at the 17 seismic, check the interpretation, the surfaces, look at 18 the well logs, consider how you're going to build that 19 and populate the grid cells, and what would be the best 20 way of doing that. Then are you going to upscale? How 21 are you going to run the model? That task can take 22 certainly more town month to do it properly. 23 Q. And you didn't feel you were up to doing it in the time 24 available? 25 A. We could have done it but not in the time available.</p> <p style="text-align: center;">Page 62</p>	<p>1 for porosity is nowhere near as great as anywhere that 2 you would find for permeability. And with permeability 3 you have issues of scale that affects the 4 permeability -- effective permeability. Porosity that 5 isn't the case. The variability is much less as you 6 go -- well, there isn't the same variability along the 7 well as there is into the reservoir. 8 Q. Well, I can see that you're very anxious to take the 9 opportunity to attempt to rebut the very satisfactory 10 answer that Mr Filippi gave yesterday -- 11 A. I would prefer to describe it as a clarification for the 12 benefit of the Tribunal. 13 Q. -- but if we could return to your report and your model. 14 A. Sure. 15 Q. One of the things you mention on -- it's page 180 of 16 your original report as amended, if I can call it that, 17 at paragraph 6.2.4.1. This is the section of your 18 report where you discuss what you call -- 19 A. Sorry, which page? 20 Q. Page 180 in the bundle. 21 THE CHAIRMAN: That's paragraph 6.4? 22 MR NESBITT: 6.2.4.1. 23 THE CHAIRMAN: Thank you. 24 MR NESBITT: I am sorry, the paragraph numbering is such 25 a mouthful.</p> <p style="text-align: center;">Page 64</p>

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<p>1 This is the part of your report where you discuss 2 what you call the additional structure above the T1A 3 reservoir -- 4 A. That's correct. 5 Q. -- as represented in the 2014 D&M model. If I have 6 understood correctly, that additional structure is 7 a series of additional cells in the model that you were 8 given that represent gas volumes. 9 A. They represent gas field sands in a shale matrix that 10 sits above the top surface that defines the T1A 11 reservoir, and I should say a conformable surface above 12 that defined by Eni and themselves. So it's basically 13 shale-filled. Remember, the channel complex is sand 14 body encased in shale, and what we have here is a series 15 of sands in the shale matrix just above the T1A 16 reservoir, and in the seismic they basically appear 17 bright because some of them are gas-filled. 18 Q. But the effect of adding those cells to the model is 19 significantly to increase the model size of the gas cap; 20 right? 21 A. What it will do is -- clearly, although it's not 22 reported by D&M in their report, I think they probably 23 had the same issues that Mr Filippi had, in terms of the 24 match. Additional volumes of gas are needed and it may 25 well be that these sands are connected in some way with</p> <p style="text-align: center;">Page 65</p>	<p>1 A. Well, we looked at this. We didn't have -- we didn't 2 have -- 3 Q. Sorry, you looked at it after your original report or at 4 the time you wrote it? 5 A. No, no, in here, the point of -- when we were writing 6 this, because when we received the model we were aware 7 of these structures above the T1A reservoir and I made 8 enquiries with Allied about what they represented, and 9 we needed clarification. We didn't -- and we actually 10 never received a depth-corrected seismic, but it was 11 clear, looking at what we had, that the structures in 12 this model, these gas chimneys, appeared to be 13 coincident with these glowing sands that were situated 14 in the shale matrix above the reservoir, and that was 15 the explanation that Allied gave us to and we were 16 happy, in the time that we had, to accept that. And in 17 retrospect, looking at how the results of the material 18 balance have turned out, it seems that actually these 19 sands are connected in some dynamic way and are 20 necessary in order to balance the observed depletion. 21 Q. This is an explanation you received after you'd done 22 your original report, before you did your joint report? 23 A. No, I believe it's referenced in my first report. 24 Q. I haven't seen it referenced in your first report, but 25 I have seen it referenced in your joint report, if we're</p> <p style="text-align: center;">Page 67</p>
<p>1 the reservoir. 2 Q. Sorry, when you say "additional volumes of gas are 3 needed", what do you mean? 4 A. Well, the material balance -- the figures that 5 Mr Filippi has come up with -- I agree with, in terms of 6 what they represent for the western side of the Oyo 7 field. In order to match the pressure data it was clear 8 that -- and material balance doesn't give you any 9 indication of where these volumes are located or the 10 shape or the distribution, it just gives you a volume. 11 So it's clear that additional gas seemed to be needed in 12 order to match the data -- to match the pressure data. 13 Q. Well, sorry, can I just stop you there for a second, 14 trying to sort of cut to the chase -- 15 A. Yes. 16 Q. -- at paragraph 6.2.4.3 you say: 17 "The basis of the model attributes are not 18 documented and cannot be determined from the available 19 Petrel(?) project, hence the exact provenance of the 20 model properties cannot be verified." 21 A. Right. 22 Q. So what you seem to be saying there, at least at the 23 time of writing your original report, is that you 24 weren't convinced that the additional gas cells were 25 appropriate?</p> <p style="text-align: center;">Page 66</p>	<p>1 talking about the same thing. 2 A. Well, if you don't mind -- 3 Q. Because -- 4 A. -- I would -- 5 Q. Sorry. 6 A. May I find it? 7 Q. Because -- sure. While you are doing that, though, it 8 does seem that in your original report you're continuing 9 to express uncertainty about these extra cells, because 10 you finish that section of your report, you say at 11 page 181: 12 "In conclusion, it seems likely that the bright 13 amplitudes in sequence 4 ..." 14 Which is what you refer to these, as I believe: 15 "... do represent gas-bearing rock out but it is far 16 from certain that these are thick blocky sands or that 17 they are in dynamic communication with the main T1A 18 sands." 19 A. Yes. 20 Q. So you seem to have a lot of question marks over it, 21 even in your original report. 22 A. No, not particularly. May I -- 23 THE CHAIRMAN: Excuse me, you wanted to refer to something. 24 Would you like to refer to it? 25 A. I did indeed. I would like the opportunity to try and</p> <p style="text-align: center;">Page 68</p>

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<p>1 find the reference to the email.</p> <p>2 THE CHAIRMAN: If you know where it is, then --</p> <p>3 A. I know it is in here somewhere, as they say.</p> <p>4 THE CHAIRMAN: If it is going to take too long, we might</p> <p>5 give you chance during the lunch break to check it.</p> <p>6 A. Okay.</p> <p>7 MR NESBITT: It might be more productive if we look at the</p> <p>8 email itself, Mr Chairman.</p> <p>9 A. If you've got it there --</p> <p>10 THE CHAIRMAN: I thought the issue was whether something was</p> <p>11 referred to in the expert report, in the first report.</p> <p>12 MR NESBITT: It's an email that Dr Moy relies upon in</p> <p>13 support of his conclusions in his joint report, but</p> <p>14 I had not seen it referred to in the original report,</p> <p>15 but apparently that is wrong. But perhaps rather than</p> <p>16 waiting for Dr Moy to turn every page --</p> <p>17 A. Okay. I would like the opportunity to find this email</p> <p>18 in the coffee break, because it is certainly referred to</p> <p>19 in my first report.</p> <p>20 THE CHAIRMAN: Very good.</p> <p>21 A. So we can continue.</p> <p>22 MR NESBITT: Well, we can go to the email. It is</p> <p>23 bundle F39, tab 12. This is what you refer to as</p> <p>24 an email from Allied, although it appears to be largely</p> <p>25 an exchange between yourself and a Mr or Ms --</p> <p style="text-align: center;">Page 69</p>	<p>1 than a month to do a proper job, incorporating all the</p> <p>2 data, seismic, well logs, upscaling if required. To do</p> <p>3 a good job is more than a month.</p> <p>4 Q. If we turn to the earliest email in the chain, which</p> <p>5 starts on page 94. This is an email from you to</p> <p>6 Mr Omidele --</p> <p>7 A. Yes.</p> <p>8 Q. -- in which you say:</p> <p>9 "Thank you for the points made during the conference</p> <p>10 call. Please feel free to add your comments in</p> <p>11 a supplementary information directly to the Word</p> <p>12 document version of my report and I will take a look on</p> <p>13 Monday.</p> <p>14 "Concerning the most recent D&M model, I have taken</p> <p>15 the liberty to attach some screenshots, as a verbal</p> <p>16 description is difficult. We ran the model as received</p> <p>17 from Toyin [this is Ms Badru, I guess] and made the</p> <p>18 following observations:</p> <p>19 "The model ran only to 11 January 2010. After</p> <p>20 several hours there were major convergence issues which</p> <p>21 do not appear to have been fully addressed by the</p> <p>22 constructors. The grid appeared to have additional</p> <p>23 active cells which were filled with gas above the</p> <p>24 gas-oil contact or water ... Those filled with gas</p> <p>25 raised the initial gas in place from 62 bcf (previous</p> <p style="text-align: center;">Page 71</p>
<p>1 A. Ms --</p> <p>2 Q. -- Badru --</p> <p>3 A. -- Toyin Badru.</p> <p>4 Q. -- at Erin Energy. Ms. Who is she?</p> <p>5 A. She is the reservoir engineer. I've not met her. I've</p> <p>6 spoken briefly once, a conference call, but we</p> <p>7 communicate by email.</p> <p>8 Q. So this is what you rely on in your joint report in</p> <p>9 support of the inclusion of the extra gas cells in the</p> <p>10 model?</p> <p>11 A. Yes.</p> <p>12 Q. Okay. So if we look at the top of the email chain on</p> <p>13 page 92, this was 11 January 2016. So that was about</p> <p>14 a month and a half before you served your first report.</p> <p>15 A. Mmm-hmm.</p> <p>16 Q. So you didn't have time to build your own model. You</p> <p>17 were happy to use the D&M one? You said it would take</p> <p>18 about a month to build your own model.</p> <p>19 A. No, I didn't say it would take a month. It takes a lot</p> <p>20 longer to build a proper model. Anyone can build</p> <p>21 a model.</p> <p>22 Q. I think you did say month?</p> <p>23 A. No, I didn't.</p> <p>24 Q. Okay. We can check the transcript.</p> <p>25 A. Well, whatever I said, it certainly would take longer</p> <p style="text-align: center;">Page 70</p>	<p>1 model and accepted GIIP volume) to 155 bcf."</p> <p>2 A. Yes.</p> <p>3 Q. "Investigations showed that these were pressure</p> <p>4 connected to the rest of the reservoir."</p> <p>5 A. Yes.</p> <p>6 Q. And you then say:</p> <p>7 "I am very willing to take a fresh look at the</p> <p>8 model. However, it needs to have correct in-place</p> <p>9 volumes and look correct, run in an acceptable time ..."</p> <p>10 And then at the end:</p> <p>11 "As Shai indicated, it would be best to stick with</p> <p>12 2013 D&M unless the above points can be rapidly</p> <p>13 addressed."</p> <p>14 A. Yes.</p> <p>15 Q. So, I mean, certainly to me in this email you appear to</p> <p>16 be expressing doubts about the reliability of the 2014</p> <p>17 model; no?</p> <p>18 A. No -- well, not particularly --</p> <p>19 Q. Not particularly.</p> <p>20 A. -- and they are addressed subsequent to this email. The</p> <p>21 one from Toyin addresses what those cells are and what</p> <p>22 they represent. That was on 11 January. They sent</p> <p>23 a model that did run without any convergence problems</p> <p>24 and we were able to run it, although it did take a long</p> <p>25 time. The issue about the volumes of gas -- so if one</p> <p style="text-align: center;">Page 72</p>

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<p>1 is looking at the Oyo central west, west of the fault, 2 within the T1A reservoir you have indeed 62 bcf of gas. 3 If you include the additional cells again on the western 4 side of the fault, it gives you 155 bcf of gas. 5 In total, I should add, over the entire structure 6 there's something like 227 bcf of gas in the entire 7 model. 8 Q. Well, it looks like in response to your initial concerns 9 Erin Energy sent you a further version of the model. 10 That's at the top of page 94, where you say: 11 "Please send the model by FTP." 12 A. Yes. 13 Q. But then if you look at page 92, at the bottom of the 14 page -- 15 A. Yes. 16 Q. -- which is a few emails further on, you say at point 2: 17 "There still appear to be gas chimneys resulting in 18 a gas initially in place of 227." 19 A. Sorry, which email? Sorry, I am lost. 20 Q. At the bottom of page 92. 21 A. Sorry. Go ahead, sorry. 22 Q. Point 2 -- 23 A. Yes, certainly. 24 Q. Point number 2: 25 "There still appear to be gas chimneys resulting in</p> <p style="text-align: center;">Page 73</p>	<p>1 these bright features that were seen above the T1A in 2 the seismic, just to get a warm feeling that actually, 3 yes, there could certainly be -- they are gas-filled, 4 they do exist, and we see them in the seismic. And 5 I think that the two pieces of information here, the 6 email and our look at the seismic, confirmed to my 7 satisfaction that we could go ahead and use the model. 8 Q. But you're happy to say that there is no inconsistency 9 between your position in your original report and in the 10 joint report in relation to the extra cells above the 11 T1A reservoir? 12 A. There is no contradiction as far as I'm aware. 13 Q. No contradiction. Okay. 14 Let's move on to talk about permeability. We are 15 going back to your original report as amended at 16 3.1.2.6. That's page 132. 17 A. Okay. 18 Q. And you explained that the D&M model had a number of 19 global and local permeability modifiers? 20 A. Sorry, which -- have I got the right document here? 21 Q. Your report. 22 A. Yes, which -- 23 Q. Which report? The one at tab 2. 24 A. Sorry. Oh, I think I have got the wrong file. Right, 25 tab 2 and, sorry, what was the page?</p> <p style="text-align: center;">Page 75</p>
<p>1 a gas initially in place of 227. Again, this may be 2 based on a new G&G analysis, in which case please could 3 you forward any slides. Oyo-7 and 8 match in this most 4 recent model and are much improved. However I am not 5 comfortable using the model until point 2 is clarified." 6 A. Exactly. 7 Q. So at that stage you're still a bit uncomfortable at 8 using the model as a result of the gas chimneys? 9 A. Yes, certainly, and that was on 10 January. On I think 10 it was the 11th, that email from Toyin, which for we 11 satisfied -- I have to take it on trust that she's 12 telling me the truth that -- and she's given me 13 an explanation for those, and I accepted that. 14 Q. I see. So she says, regarding point 2: 15 "The extra gas initially in place comes primarily 16 from the extension to the T1A which was modelled in this 17 most current version." 18 A. Mmm-hmm. 19 Q. And then she goes on to refer to the re-evaluation which 20 you mentioned and you just took that at face value. 21 A. Well, we did -- 22 Q. You didn't ask any further questions about it? 23 A. Well, following this I approached one of my colleagues 24 to just have a look and see where these extra cells were 25 and to see how they -- their position in relation to</p> <p style="text-align: center;">Page 74</p>	<p>1 Q. 132. 2 A. Okay. 3 Q. Okay. 3.1.2.6. 4 A. Okay. 5 Q. You explain that the D&M model had a number of global 6 and local modifiers applied to the grid cell properties, 7 one of which related to permeability -- 8 A. That's correct. 9 Q. -- and that was in order to achieve a history match? 10 A. Yes. The permeabilities in the geomodel were very high. 11 We assumed, therefore, that they had been populated 12 based on the pore data. 13 Q. And I think you were here on Day 1 when I was attempting 14 to explain the concept of permeability -- 15 A. Yes. 16 Q. -- and, more specifically, permeability modifiers and 17 I said something like: 18 "The global permeability modifier is a multiple 19 which is used to calculate the degree of permeability 20 that you ascribe to the reservoir in the model." 21 So, in other words, the higher your multiple, the 22 higher the permeability in the model; was that broadly 23 right? 24 A. Yes. 25 Q. Okay. And taking it one stage further, that is</p> <p style="text-align: center;">Page 76</p>

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<p>1 significant because the higher your permeability, the</p> <p>2 more oil you get and the less gas?</p> <p>3 A. In general, yes. In these kinds of reservoirs that's</p> <p>4 what you would find.</p> <p>5 Q. Okay. As regards a local permeability modifier, the</p> <p>6 principle is the same, except that you're applying it to</p> <p>7 a localised area of the reservoir rather than to the</p> <p>8 entire model; is that correct?</p> <p>9 A. That's right, yes.</p> <p>10 Q. Okay. And is it also the case that you only apply</p> <p>11 permeability modifiers when the model isn't otherwise</p> <p>12 matching the behaviour of the field sufficiently</p> <p>13 satisfactorily?</p> <p>14 A. Well, in our case or in the case of the D&M model it is</p> <p>15 clear that the -- because we received two models. We</p> <p>16 had the geomodel. It's the same grid as the ECLIPSE</p> <p>17 simulation model. The only difference there is that</p> <p>18 when the grid was exported into ECLIPSE for simulation,</p> <p>19 there was a command in the ECLIPSE file to say, "Take</p> <p>20 the permeabilities from the geomodel and multiply them</p> <p>21 by 0.1". It wasn't clear from the D&M report -- the</p> <p>22 one, for example, that we looked at earlier, this</p> <p>23 multiplier is mentioned but it's not explained. So it</p> <p>24 wasn't until we looked at the core data, which is</p> <p>25 plotted in the geological supplement of my first report,</p> <p style="text-align: center;">Page 77</p>	<p>1 A. It's applied to the grid pore volume and, as I tried to</p> <p>2 explain earlier, the two are related very simply through</p> <p>3 the volume of each grid cell. So you take the bulk</p> <p>4 volume of the grid cell and you multiply it by porosity,</p> <p>5 say the porosity that you've measured in the well that</p> <p>6 may go through that grid cell, and that will you the</p> <p>7 pore volume. The two are related very simply.</p> <p>8 MR NESBITT: Just to clarify, it is not accepted by</p> <p>9 Mr Filippi that he modified porosity.</p> <p>10 LORD HOFFMANN: No, he definitely denied it.</p> <p>11 A. There is a keyword --</p> <p>12 MR NESBITT: Sorry, Dr Moy, if we could perhaps come back to</p> <p>13 permeability, which is what I am asking about, I know</p> <p>14 porosity appears to be one of your new favourite</p> <p>15 subjects. But following on from the question that the</p> <p>16 chairman raised and the use of permeability modifiers,</p> <p>17 is it right to say that in general the more modifiers</p> <p>18 you use, particularly local modifiers, the stronger the</p> <p>19 indication that the geological model without the</p> <p>20 modifiers isn't representative of the actual geology?</p> <p>21 In other words, what the person creating the model is</p> <p>22 doing is using what you might call patches to achieve</p> <p>23 an acceptable history match.</p> <p>24 A. It really depends on what the parameter is that you're</p> <p>25 affecting the multiplier and whether that's from log</p> <p style="text-align: center;">Page 79</p>
<p>1 that it was clear that actually the permeabilities in</p> <p>2 the geomodel appeared to be populated from core data and</p> <p>3 that therefore this point 1 parameter, which had been</p> <p>4 applied in the simulation model, was in order to reduce</p> <p>5 the permeabilities.</p> <p>6 THE CHAIRMAN: If I may, do you have any objection to</p> <p>7 applying modifiers to the permeability?</p> <p>8 A. No, no.</p> <p>9 THE CHAIRMAN: So to the extent that Mr Filippi has applied</p> <p>10 a modifier to the permeability, would you have any</p> <p>11 objection to that?</p> <p>12 A. I believe the multiplier was applied to the porosity.</p> <p>13 THE CHAIRMAN: Oh, to the porosity.</p> <p>14 A. And that's very different. The reason it is very</p> <p>15 different, for example, is if -- in the geological</p> <p>16 supplement there is a plot that I mentioned of the core</p> <p>17 data. If you look on the X axis that's porosity and the</p> <p>18 Y axis is permeability. For any given porosity, you</p> <p>19 will notice, especially in the case of Oyo core data,</p> <p>20 that there are two orders of magnitude range</p> <p>21 permeability. So actually what you can say is porosity</p> <p>22 varies very little in this kind of environment, but the</p> <p>23 permeability changes considerably.</p> <p>24 LORD HOFFMANN: Mr Filippi actually denied that he had</p> <p>25 applied it to the porosity.</p> <p style="text-align: center;">Page 78</p>	<p>1 information or whether there's a degree of uncertainty</p> <p>2 in terms of permeability. So in answer to that it would</p> <p>3 be not necessarily, but as an engineer you would love to</p> <p>4 build a model, populate it from the log data and it</p> <p>5 gives you a match the first time, without applying any</p> <p>6 kind of local modifications. That would be fantastic if</p> <p>7 you could do that.</p> <p>8 I have never seen that done. It is very, very --</p> <p>9 a you need -- in mature field, for example, where</p> <p>10 there's lots of well penetration, so your uncertainty as</p> <p>11 to the size, and the properties in the reservoir are</p> <p>12 minimised, then it is likely you could get that</p> <p>13 situation. But in a reservoir like Oyo, where you've</p> <p>14 got very few well penetrations, there is a high degree</p> <p>15 of uncertainty, in the properties fairly high, and</p> <p>16 certainly high in the permeability. You really need to</p> <p>17 apply local modifiers, certainly to a property like</p> <p>18 permeability where there is quite a wide range of</p> <p>19 uncertainty.</p> <p>20 Q. So is the answer: not necessarily but in this case yes?</p> <p>21 A. Yes.</p> <p>22 Q. We are quite tight for time, so --</p> <p>23 A. Sure --</p> <p>24 Q. -- if you could attempt to restrain yourself and give as</p> <p>25 short an answer as possible to the questions --</p> <p style="text-align: center;">Page 80</p>

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<p>1 A. Absolutely.</p> <p>2 Q. -- I think that will be appreciated by everyone.</p> <p>3 Now, the D&M model that was provided to you by the</p> <p>4 respondents to use in this arbitration, that had</p> <p>5 a global permeability modifier of 0.1.</p> <p>6 A. It did, yes.</p> <p>7 Q. Okay. And as you explain in your report -- and here</p> <p>8 I am looking at the same page as we were at, 132, but</p> <p>9 paragraph 1.3.2 -- 9, in order to match the behaviour of</p> <p>10 Oyo-5 D&M also had to apply a local relative</p> <p>11 permeability modifier in the area with the so-called box</p> <p>12 around Oyo-5?</p> <p>13 A. Yes.</p> <p>14 Q. So, in other words, the way in which D&M were addressing</p> <p>15 the behaviour of Oyo-5 in their model was effectively</p> <p>16 simply to replicate its effects by making modifications</p> <p>17 to the model, rather than using the model to investigate</p> <p>18 what caused that behaviour? So, for example, D&M didn't</p> <p>19 attempt to model what the effect would have been of</p> <p>20 a channel in the cement, for example?</p> <p>21 A. It certainly isn't possible to model a channel in the</p> <p>22 cement.</p> <p>23 Q. Not possible per se or not possible for you?</p> <p>24 A. Well -- no, I mean, that's -- let's get this into</p> <p>25 perspective here. A reservoir simulator -- if you zoom</p> <p style="text-align: center;">Page 81</p>	<p>1 right?</p> <p>2 A. I think that's probably right.</p> <p>3 Q. Good.</p> <p>4 A. Yes.</p> <p>5 Q. Now, going back to your -- do you still have bundle F39</p> <p>6 there?</p> <p>7 A. No, I think it's disappeared.</p> <p>8 Q. Sorry. Could you be given it again, please.</p> <p>9 Now, I am looking at page 93, because another thing</p> <p>10 that you asked -- sorry, tab 12. It is the same Allied</p> <p>11 or Erin Energy email.</p> <p>12 So I am now looking at page 93, and this is your</p> <p>13 email of 8 January, copied to Mr Dyson, but to Ms Badru,</p> <p>14 copied to Mr Dyson, Mr Omidale and various others. You</p> <p>15 appear to be asking Erin Energy why a permeability</p> <p>16 modifier had been applied.</p> <p>17 A. Mmm-hmm.</p> <p>18 Q. So you say:</p> <p>19 "Could you please assist me in understanding why</p> <p>20 this was used? Is there a geological reason for this</p> <p>21 reduction?"</p> <p>22 On the second point:</p> <p>23 "Has the 0.1 factor simply been applied in order to</p> <p>24 history match the Oyo-5 gas behaviour? If so, how does</p> <p>25 this affect the prediction of gas production at 7 and 8</p> <p style="text-align: center;">Page 83</p>
<p>1 in on a reservoir simulator you won't find a graphic of</p> <p>2 the well with the casing and the cement, with the</p> <p>3 completion and all of that. Basically, it's a series of</p> <p>4 grid cells. A simulator calculates pressure drops</p> <p>5 between the centres of the cells, and in fact, to give</p> <p>6 you a pressure drop up to the surface, it looks -- it</p> <p>7 uses a series of look-up tables. That's exactly what's</p> <p>8 in the simulator.</p> <p>9 So measuring or modelling gas through cement</p> <p>10 effectively is just measuring the gas flow through</p> <p>11 a conduit.</p> <p>12 THE CHAIRMAN: Excuse me, but I thought the question was</p> <p>13 whether D&M was trying to establish what caused the</p> <p>14 current situation.</p> <p>15 A. Right.</p> <p>16 THE CHAIRMAN: And I have understood your answer that D&M</p> <p>17 was not looking at the causes of the present situation?</p> <p>18 A. They weren't -- they didn't model any potential leakage</p> <p>19 through cement, for example.</p> <p>20 MR NESBITT: As I think was obvious from the question, that</p> <p>21 was just an example, my question was, as the chairman</p> <p>22 put it, the way in which they addressed the behaviour of</p> <p>23 Oyo-5 in their model was to replicate its effects by</p> <p>24 modifying the model. They weren't using the model to</p> <p>25 investigate the cause of the behaviour of Oyo-5; is that</p> <p style="text-align: center;">Page 82</p>	<p>1 which have produced considerably less gas? If part, and</p> <p>2 especially the early part, of Oyo-5 gas production was</p> <p>3 dominated by gas entering via the casing before direct</p> <p>4 gas breakthrough from the cap, how would this element be</p> <p>5 reflected in the model? I would really appreciate</p> <p>6 having a better understanding of these points as</p> <p>7 I believe they are key."</p> <p>8 A. Okay.</p> <p>9 Q. Then above your email is Ms Badru's response. But as</p> <p>10 far as I can see, she doesn't answer your question on</p> <p>11 8 January.</p> <p>12 A. No.</p> <p>13 Q. Correct? So you pressed again for an answer in the</p> <p>14 subsequent email at the bottom of page 92. When her</p> <p>15 answer came, which is in the email at the top of the</p> <p>16 chain, she simply says:</p> <p>17 "History ..."</p> <p>18 Yes, in the first line:</p> <p>19 "Regarding point 1, history matching efforts require</p> <p>20 the reduction in the permeability."</p> <p>21 A. Yes.</p> <p>22 Q. So that's the only explanation you were given. She</p> <p>23 doesn't answer your question about how the modification</p> <p>24 around Oyo-5 would reflect what actually happened in</p> <p>25 Oyo-5 or how it would affect the forecasted behaviour</p> <p style="text-align: center;">Page 84</p>

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<p>1 of 7 and 8.</p> <p>2 So even though you'd identified these points as</p> <p>3 being key to your understanding of the model to help you</p> <p>4 become comfortable with it, you don't really have --</p> <p>5 appear to have much more than this rather Delphic answer</p> <p>6 of "History matching efforts required for permeability</p> <p>7 reduction". Was that right insofar as this</p> <p>8 correspondence goes?</p> <p>9 A. It's a bit -- the response is indeed a little slim, but</p> <p>10 we looked at the core data, and although it says -- as</p> <p>11 I said, it's not mentioned in the report, we came to the</p> <p>12 conclusion that the geomodel was populated with core</p> <p>13 permeability, and that this -- in some way this</p> <p>14 multiplier had been essential to get the wells behaving</p> <p>15 reasonably, as they were observed to behave. So, yes,</p> <p>16 that's all I had from Toyin.</p> <p>17 Q. Right. But it is right, isn't it, that the history</p> <p>18 match achieved by that model wasn't actually good</p> <p>19 enough, was it?</p> <p>20 A. Oh, well, one would hope to have a better history match</p> <p>21 sometimes. When that doesn't happen it's -- yes,</p> <p>22 it's -- the problem is most likely due to the</p> <p>23 permeability, there's an uncertainty over what the</p> <p>24 actual permeabilities are, and also reflecting the</p> <p>25 coning, which I was -- I made clear in the presentation,</p> <p style="text-align: center;">Page 85</p>	<p>1 Q. I'm simply referring you to your summary of your</p> <p>2 approach to the "but for" calculations.</p> <p>3 A. Yes, okay.</p> <p>4 Q. And by the "but for" scenario obviously what we're</p> <p>5 talking about is your version of the hypothetical</p> <p>6 scenario that would have resulted "but for" the supposed</p> <p>7 essentially breach of contract or alleged breach of</p> <p>8 contract by NAE in managing the well; yes?</p> <p>9 A. The "but for" case is, yes, the less gassy scenario.</p> <p>10 Q. Now, I think you have -- you understand, of course, that</p> <p>11 essentially what we now know is that the two breaches of</p> <p>12 contract being alleged by the respondents in this</p> <p>13 arbitration relate to cementing. They say the cementing</p> <p>14 wasn't good enough. And the second one relates to</p> <p>15 production, which they say was (inaudible) was too high</p> <p>16 or the choke size was too large or things of that sort.</p> <p>17 A. Yes.</p> <p>18 Q. You're aware of that?</p> <p>19 A. I am.</p> <p>20 Q. It is hard not to be when you have been sitting here for</p> <p>21 most of the week.</p> <p>22 A. That's right.</p> <p>23 Q. On the cementing point, I think you might have already</p> <p>24 confirmed this, but you haven't attempted to model what</p> <p>25 would have happened if there had been no entry of gas</p> <p style="text-align: center;">Page 87</p>
<p>1 this model -- none of the models -- that have cells</p> <p>2 really to mirror what happens when wells properly cone.</p> <p>3 Q. But coming back to my original point, you accept that</p> <p>4 the history match achieved by the model wasn't good</p> <p>5 enough?</p> <p>6 A. I would have preferred a better history match, yes.</p> <p>7 Q. Okay. Moving on to a slightly different topic, you then</p> <p>8 go on in your original amended report to describe how</p> <p>9 you modified the D&M model in order to create your "but</p> <p>10 for" case.</p> <p>11 A. Yes.</p> <p>12 Q. And I think the way you put it, and I am looking at the</p> <p>13 top of page 133, 3.1.2.10:</p> <p>14 "To determine what would constitute an alternative</p> <p>15 Oyo-5 production performance had the well not suffered</p> <p>16 early and severe gas incursion."</p> <p>17 So that's your "but for" scenario and obviously --</p> <p>18 A. I will need to find the page. Sorry, where was it?</p> <p>19 Page --</p> <p>20 Q. 133.</p> <p>21 A. Is it in E3 or E2?</p> <p>22 Q. It is your report, so it is in E2.</p> <p>23 A. Okay, yes. Sorry what paragraph?</p> <p>24 Q. The top of the page.</p> <p>25 A. Yes.</p> <p style="text-align: center;">Page 86</p>	<p>1 through the cement.</p> <p>2 A. You can't do that in the --</p> <p>3 Q. You can't do that.</p> <p>4 A. No. I mean, what you can model is gas flow through</p> <p>5 a conduit. But what is the relevance of doing that in</p> <p>6 terms of the reality of gas flow through damaged cement</p> <p>7 with its tortuosities and its constrictions. To assume</p> <p>8 that it's a uniform conduit, you can do it, you can</p> <p>9 calculate, but you are just calculating the pressure</p> <p>10 loss through a pipe.</p> <p>11 Q. I think what you say in your joint report, which is E3</p> <p>12 at page 136, I think. It is not really worth everyone</p> <p>13 looking it up, because it is about seven words, in</p> <p>14 answer to the question:</p> <p>15 "Was the gas ingression in Oyo-5 the result of poor</p> <p>16 cementing?"</p> <p>17 Your answer is:</p> <p>18 "This is not my area of expertise."</p> <p>19 A. It is.</p> <p>20 Q. So this is consistent with your decision not to attempt</p> <p>21 to use the model to investigate whether or not gas did</p> <p>22 in fact enter the well through a channel. You say that</p> <p>23 can't be done?</p> <p>24 A. Can't be done.</p> <p>25 Q. Mr Filippi says it can, and he has done it, but you</p> <p style="text-align: center;">Page 88</p>

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<p>1 obviously disagree on that.</p> <p>2 A. Well, as you saw yesterday, what Mr Filippi has done is</p> <p>3 model pressure drop from gas flowing through a pipe.</p> <p>4 What relevance does that have to the actual gas flow</p> <p>5 through damaged cement?</p> <p>6 Q. Well, what you say in your joint report is that:</p> <p>7 "The assumption that the failed cement can be</p> <p>8 represented by a conduit 2 inches in diameter is a gross</p> <p>9 simplification."</p> <p>10 A. That's right.</p> <p>11 Q. You say:</p> <p>12 "It is unrealistic to assume that this would all</p> <p>13 fail simultaneously."</p> <p>14 A. Correct.</p> <p>15 Q. If that's not within your area of expertise, as you said</p> <p>16 in the joint report, what's your basis for saying that?</p> <p>17 A. Because I am aware that -- of what's been done and</p> <p>18 I can't comment -- the area that's outside is commenting</p> <p>19 on the cement quality in the well. But certainly</p> <p>20 I have -- I am certainly in a position to comment on how</p> <p>21 that's been modelled and, in my view, it's not realistic</p> <p>22 to compare pressure drop in a conduit with the reality</p> <p>23 of what would happen in a well with cement with poor</p> <p>24 cement.</p> <p>25 Q. Well, I think Mr Filippi addressed that yesterday. But</p> <p style="text-align: center;">Page 89</p>	<p>1 Q. You can't model a less aggressive approach to production</p> <p>2 can you, unless you know what "less aggressive" means?</p> <p>3 A. Okay, one thing that is apparent to me, looking at the</p> <p>4 production data when we look at --</p> <p>5 Q. Sorry, is the answer yes or no?</p> <p>6 A. I would say that you can begin to get a feel for it,</p> <p>7 yes.</p> <p>8 Q. You can begin to get a feel for it?</p> <p>9 A. Yes.</p> <p>10 Q. Okay.</p> <p>11 A. In terms of what's aggressive and what isn't</p> <p>12 aggressive --</p> <p>13 Q. Right.</p> <p>14 A. -- we've seen -- and one has seen that in Oyo-7, when</p> <p>15 you had your opening submission, you had up there</p> <p>16 a planned drawdown for Oyo-7, which was planned. It's</p> <p>17 very clear that the permeability based on the log</p> <p>18 information, comparing porosity, it is very similar in</p> <p>19 Oyo-7 to Oyo-8, and you saw earlier that those two wells</p> <p>20 were very similar in their location relative to the</p> <p>21 contacts. Their producing interval is very similar.</p> <p>22 It's a matter of physics that if you produce one well at</p> <p>23 half the rate of the other well, your drawdown will be</p> <p>24 half.</p> <p>25 There's an issue about what is the drawdown because</p> <p style="text-align: center;">Page 91</p>
<p>1 that's your opinion. I've not seen it expressed in that</p> <p>2 way in any of your reports, but that's what you're</p> <p>3 saying now?</p> <p>4 A. Absolutely.</p> <p>5 Q. Obviously you're also aware that the other allegation,</p> <p>6 the surviving allegation, of breach appears to be that</p> <p>7 NAE's approach to production was in some way overly</p> <p>8 aggressive, if I can put that it way. So in your "but</p> <p>9 for" world, NAE would have managed the well less</p> <p>10 aggressively, and on the respondents' case this would</p> <p>11 have drawn less gas into the well.</p> <p>12 A. Yes.</p> <p>13 Q. Okay? However, you presumably are also aware that even</p> <p>14 in their own pleaded case the respondents don't actually</p> <p>15 define or quantify what they say would have been</p> <p>16 an appropriate way of beaming-up or producing from the</p> <p>17 well; right?</p> <p>18 A. Yes.</p> <p>19 Q. And nor does their production expert, Mr Dyson, set this</p> <p>20 out.</p> <p>21 A. Mmm-hmm.</p> <p>22 Q. From your perspective that presents you with something</p> <p>23 of a problem because you only model things that are</p> <p>24 defined within specific parameters; right?</p> <p>25 A. Yes.</p> <p style="text-align: center;">Page 90</p>	<p>1 the gauges in both wells are substantially higher --</p> <p>2 shallower than the sand face. So the issue perhaps is</p> <p>3 not what's the absolute drawdown. But I can assure you</p> <p>4 that given the permeabilities that are so similar in</p> <p>5 those two locations and wells so similar in their</p> <p>6 producing interval, if you produce one at half the rate</p> <p>7 of the other your drawdown will be half.</p> <p>8 Q. Coming back to your point about beginning to get a feel</p> <p>9 for it, at the time of your first report, did your</p> <p>10 feeling suggest that aggressive meant that NAE had</p> <p>11 applied a drawdown of 400 psi?</p> <p>12 A. The error from that came from looking at the gauge data</p> <p>13 without any correction. So the gauge is 1,000 vertical</p> <p>14 feet above the sand base. It has to be corrected -- you</p> <p>15 have to estimate what the pressure would be, and that</p> <p>16 even involves knowing what the flow rate and the fluid</p> <p>17 composition is between the gauge and the sand face. And</p> <p>18 once you do that correction, your drawdown is in the</p> <p>19 region, as I said, 100 psi plus or minus 10.</p> <p>20 Q. Dr Moy, there is a plethora of information on the</p> <p>21 record, contemporaneous calculations done by the</p> <p>22 operator at the time, which indicate what the drawdown</p> <p>23 applied was. Were you not provided with that</p> <p>24 information? You just felt you had to calculate it in</p> <p>25 isolation by yourself?</p> <p style="text-align: center;">Page 92</p>

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<p>1 A. It's wise to check, yes. All I've seen, I should add,</p> <p>2 in terms of output from NAE, in terms of the well</p> <p>3 test -- I've not seen -- well, certainly in the</p> <p>4 multi-rate test that was done they seem to give gauge --</p> <p>5 they compare shut-in gauge pressure with a drawdown</p> <p>6 gauge pressure.</p> <p>7 Q. Sorry, are you saying that you did check it, you reran</p> <p>8 the calculation yourself --</p> <p>9 A. We did --</p> <p>10 Q. -- but you got it wrong, you came up with 400 --</p> <p>11 A. No, what we did we went back and we looked in detail at</p> <p>12 the gauge data and did the calculation using PROSPER</p> <p>13 software for a number of points along the production</p> <p>14 history of the well.</p> <p>15 Q. And this is at the time of your first report when you</p> <p>16 got it wrong or you second report --</p> <p>17 A. That would be between --</p> <p>18 Q. Sorry, could I finish my question because otherwise we</p> <p>19 are overspeaking and we will annoy the transcribers, if</p> <p>20 we haven't already.</p> <p>21 A. Sorry.</p> <p>22 Q. This is at the time of your joint report you ran the</p> <p>23 PROSPER software?</p> <p>24 A. Yes, we needed to check and confirm.</p> <p>25 Q. And then you got the right number. But at the time of</p> <p style="text-align: center;">Page 93</p>	<p>1 Q. This is in the period between your original report and</p> <p>2 your joint report?</p> <p>3 A. That's correct, yes.</p> <p>4 Q. Do you now accept that the drawdown of around 100 psi</p> <p>5 was not "aggressive" or do you express no opinion on the</p> <p>6 drawdown?</p> <p>7 A. No, I can't express an opinion because it may well be</p> <p>8 that the correct drawdown was 50 psi. We saw earlier</p> <p>9 that 15,000 will bring in gas. The maximum rate of</p> <p>10 Oyo-5 exceeded 13,000. To me that suggests that there's</p> <p>11 a good chance it brought gas in at that rate. Whatever</p> <p>12 the corresponding drawdown might be, let's assume it is</p> <p>13 100 psi, we do know when we look at Oyo-7, effectively</p> <p>14 similar, it was brought in at tops 8,000 barrels of oil</p> <p>15 a day. That would imply from the physics that the</p> <p>16 drawdown is going to be around half. So whether we're</p> <p>17 talking about 100 psi, 50 psi, whether 100 is excessive,</p> <p>18 it did what it did.</p> <p>19 Q. Well, in your original report -- you don't need to look</p> <p>20 it up but it is a paragraph I took Mr Dyson to at</p> <p>21 4.2.2.7, and this is obviously before you were aware</p> <p>22 that you had miscalculated the drawdown, you said:</p> <p>23 "It must be noted that the maximum permitted</p> <p>24 drawdown as specified in the Oyo-7 and 8 start-up</p> <p>25 programmes is 100 psi and neither of these wells</p> <p style="text-align: center;">Page 95</p>
<p>1 your first report you hadn't appreciated that the down</p> <p>2 hole gauge wasn't at the bottom of the well or -- what's</p> <p>3 the explanation?</p> <p>4 A. We thought that the data had already been depth</p> <p>5 corrected, and that wasn't the case. So when</p> <p>6 I enquired -- we had initially also got -- in the</p> <p>7 initial data bundle we didn't have the correct or final</p> <p>8 completion diagram for Oyo-5 either. That was sent</p> <p>9 later, again by Toyin, which confirmed the gauge of the</p> <p>10 depth as 1,000 feet above the completion.</p> <p>11 Q. So you presumably heard Mr Dyson explain it yesterday</p> <p>12 that when he also relied upon this figure in his report</p> <p>13 he was relying on the information that had been provided</p> <p>14 by you?</p> <p>15 A. Right.</p> <p>16 Q. And I think what you're now saying is that the reason</p> <p>17 that you committed such a basic error is because you</p> <p>18 weren't provided with sufficient data by your client?</p> <p>19 A. Two assumptions. I thought that the data had been</p> <p>20 depth-corrected and when we went to depth-correct it we</p> <p>21 had -- initially we had the wrong completion diagram,</p> <p>22 and so I went back to Allied and said "Is this correct?"</p> <p>23 And they sent me -- in fact what we hadn't received is</p> <p>24 the final completion diagram, which showed the correct</p> <p>25 depth of the gauge mantle(?) in the well.</p> <p style="text-align: center;">Page 94</p>	<p>1 suffered the rapid and sudden gas incursion which</p> <p>2 affected Oyo-5."</p> <p>3 A. Hmm.</p> <p>4 Q. So you appear implicitly at least to be approving</p> <p>5 100 psi as an appropriate drawdown for wells drilled</p> <p>6 into the Oyo reservoir.</p> <p>7 A. That's --</p> <p>8 Q. Have you now changed your mind on that and suggesting 50</p> <p>9 would be better?</p> <p>10 A. I don't -- in terms of Oyo-7 and Oyo-8, the programme</p> <p>11 mentioned maximum drawdown of 100. We've seen how</p> <p>12 difficult it is to calculate the drawdown because you've</p> <p>13 got this conversion from gauge to sand face --</p> <p>14 Q. Why do you say it is difficult? It appears to be</p> <p>15 entirely straightforward?</p> <p>16 A. It is not at all. So, for example, you would need to</p> <p>17 monitor -- you have an issue here, you've got a gauge</p> <p>18 1,000 vertical feet above the sand face. You've got to</p> <p>19 use PROSPER to do the conversion from where the gauge is</p> <p>20 to the sand face. In order to do that, you need to have</p> <p>21 some information. You need to know the internal</p> <p>22 diameter of the tubing down to the sand face. You need</p> <p>23 to know the phases -- the rates, oil, water, gas, that</p> <p>24 is flowing in the well, and use software which allows</p> <p>25 you to calculate the friction of flowing pressure drops</p> <p style="text-align: center;">Page 96</p>

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<p>1 along there.</p> <p>2 Q. Sorry, Dr Moy --</p> <p>3 A. But I would like to add --</p> <p>4 Q. Sorry --</p> <p>5 A. -- we are flowing this well without a test separator and</p> <p>6 we don't know exactly what the flow rates are because we</p> <p>7 are also having flow from Oyo-6. So there is</p> <p>8 an inherent uncertainty as to any conversion from the</p> <p>9 gauge depth to the sand face.</p> <p>10 THE CHAIRMAN: For any operator, isn't it, important to know</p> <p>11 the drawdown? They calculate the drawdown all the time,</p> <p>12 don't they?</p> <p>13 A. They would calculate it using that, and what one would</p> <p>14 hope is having a completion design that allows you to</p> <p>15 have that gauge near the sand face in the vertical</p> <p>16 depth, and I think we heard from Mr Dyson the problem is</p> <p>17 you've got a packer and you want to run -- you want to</p> <p>18 make sure that your gauge is run probably in the</p> <p>19 vertical -- almost vertical section of the hole. You've</p> <p>20 then got the packer, you don't want your electrical</p> <p>21 connections to run past the packer, so there's --</p> <p>22 THE CHAIRMAN: If I have understood correctly, one of the</p> <p>23 Oyo-7 or Oyo-8 does not even have a down hole gauge?</p> <p>24 A. Oyo-8 does not have a down hole gauge.</p> <p>25 THE CHAIRMAN: So you are using this PROSPER software to</p> <p style="text-align: center;">Page 97</p>	<p>1 anyway, the one you modified. Aren't you stretching</p> <p>2 credibility a little?</p> <p>3 A. Why? That's the method that's used.</p> <p>4 Q. Well, you're suggesting that merely arriving at</p> <p>5 a drawdown figure requires an enormous amount of</p> <p>6 information, but doesn't the operator have all of that</p> <p>7 information at its fingertips and this is a figure which</p> <p>8 is routinely calculated? I think what you're trying --</p> <p>9 A. Routinely calculated --</p> <p>10 Q. Sorry, Dr Moy --</p> <p>11 A. -- but probably in the office.</p> <p>12 Q. -- I think what you're trying to do is try to explain</p> <p>13 away the fact that you miscalculated it yourself.</p> <p>14 That's what you're doing, isn't it?</p> <p>15 A. No, I am referring to the 100 psi after the correct</p> <p>16 calculations were done. It would be unusual for someone</p> <p>17 on the drill -- the platform, the drill, the FPSO, for</p> <p>18 example, or wherever they were doing operations to do</p> <p>19 these calculations on the hoof, and it may seem to</p> <p>20 a non-engineer that it is a bit involved, but that's the</p> <p>21 method I've described is the method that's used. But,</p> <p>22 of course, it really depends on knowing what well is</p> <p>23 producing in both gas, oil and water. And we know</p> <p>24 unfortunately that the test separator wasn't available.</p> <p>25 So you've got flow -- you've got the added uncertainty</p> <p style="text-align: center;">Page 99</p>
<p>1 calculate the drawdown based on the pressure at the top?</p> <p>2 A. We have -- that's partially correct. What we have in</p> <p>3 Oyo-8 is no -- or I don't think the gauge is</p> <p>4 functioning. So we have no down hole pressure data for</p> <p>5 Oyo-8. We only have tubing head pressure on the seabed.</p> <p>6 For the other wells, 5 and 7, we have both. We have</p> <p>7 the tubing head and we have bottom hole pressure. So</p> <p>8 what that allows you to do, using PROSPER software, is</p> <p>9 to calculate your pressure drop, theoretical pressure</p> <p>10 drop, from your tubing head to your gauge depth. But</p> <p>11 because you've got data from those two gauges in the</p> <p>12 real world, you can calculate how close the software is</p> <p>13 predicting that drawdown, and then extrapolate that</p> <p>14 further thousand feet down to your sand face. And</p> <p>15 that's the method used in this situation, where the</p> <p>16 gauge depth is so different from the sand face depth.</p> <p>17 THE CHAIRMAN: Mr Nesbitt.</p> <p>18 MR NESBITT: I think part of the puzzlement behind the</p> <p>19 chairman's question is that you would accept, would you,</p> <p>20 that drawdown is a very important parameter for any</p> <p>21 operator producing from a well?</p> <p>22 A. Yes.</p> <p>23 Q. And yet you have managed to make calculating drawdown</p> <p>24 sound more complicated than preparing your model, which</p> <p>25 in fact you didn't actually prepare yourself, but</p> <p style="text-align: center;">Page 98</p>	<p>1 of co-mingled production from Oyo-6 and Oyo-5 at that</p> <p>2 time.</p> <p>3 Q. Dr Moy, I know you want to mention the test separator as</p> <p>4 many times as possible, but you may recall that</p> <p>5 yesterday we looked with Mr Dyson at the calculation for</p> <p>6 drawdown, and it is simply reservoir pressure minus</p> <p>7 flowing bottom hole pressure.</p> <p>8 A. Yes.</p> <p>9 Q. You agree with that?</p> <p>10 A. I do.</p> <p>11 Q. Good. Let's move on.</p> <p>12 If we go back -- how are we doing for time? -- if we</p> <p>13 go back to paragraph 3.1.2.10 of your report -- this is</p> <p>14 the top of page 133. Can you find it?</p> <p>15 A. If I am given sufficient time.</p> <p>16 Q. Now, this is where you explain how you actually</p> <p>17 approached modelling a "but for" scenario. Oh, sorry.</p> <p>18 A. What paragraph number?</p> <p>19 Q. The top of the page.</p> <p>20 A. Right.</p> <p>21 Q. 3.1.2.10.</p> <p>22 A. Okay, yes.</p> <p>23 Q. So I will just repeat that. This is where you explain</p> <p>24 how you actually approached modelling your "but for"</p> <p>25 scenario.</p> <p style="text-align: center;">Page 100</p>

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<p>1 A. Mmm-hmm.</p> <p>2 Q. And what you say, I will check I am at the right</p> <p>3 paragraph, I think so, you say that:</p> <p>4 "It was necessary to determine what would constitute</p> <p>5 an alternative Oyo-5 production performance had the well</p> <p>6 not suffered early and severe gas incursion. Based on</p> <p>7 the observed Oyo-7 and 8 GOR trends during the course of</p> <p>8 the first six months of their production I felt that it</p> <p>9 was reasonable to assume that they represented</p> <p>10 an average or typical Oyo central well free from the gas</p> <p>11 incursion issues experienced in Oyo-5."</p> <p>12 A. Yes.</p> <p>13 Q. "I therefore decided to adjust the received D&M model in</p> <p>14 order to make Oyo-5's GOR versus cumulative oil trend</p> <p>15 match that of Oyo-7, as this well's GOR trend was</p> <p>16 intermediate between the very high GOR of Oyo-5 and the</p> <p>17 low GOR of Oyo-8."</p> <p>18 So if I can put that a slightly different way, what</p> <p>19 you're saying here is that you -- for the purposes of</p> <p>20 your "but for" forecast you assumed that if NAE had</p> <p>21 managed Oyo-5 on the respondents' case in accordance</p> <p>22 with internationally acceptable Petroleum Industry</p> <p>23 Practices and Standards, it would have behaved in the</p> <p>24 same way as Oyo-7 and, therefore, what you did was you</p> <p>25 made some modifications to the D&M model, which were</p> <p style="text-align: center;">Page 101</p>	<p>1 A. I think that was --</p> <p>2 Q. It says in number 2:</p> <p>3 "The permeability multiplier around 5 was set to</p> <p>4 1.0."</p> <p>5 A. That's a permeability multiplier, yes.</p> <p>6 Q. On the removal of the box point, did you entirely remove</p> <p>7 the box?</p> <p>8 A. No, it's still defined in the model.</p> <p>9 Q. Okay. Because you say here that you did remove it.</p> <p>10 A. Well, I meant that it's the multiplication of the</p> <p>11 transmissibility that's there. So there is a ...</p> <p>12 (Pause).</p> <p>13 So in the model there are two relative permeability</p> <p>14 tables, and the second one refers to or is applied to</p> <p>15 Oyo-5 within the box, and from memory that's the one</p> <p>16 that I removed from the model, so that there was</p> <p>17 a single set of relative permeability tables for the</p> <p>18 whole field.</p> <p>19 Q. Okay. And as you said at 2 you set the multiplier to</p> <p>20 1.0.</p> <p>21 A. That's right, yes.</p> <p>22 Q. And that again, just to check what that actually means,</p> <p>23 that would increase the level of permeability attributed</p> <p>24 to the area of the model by ten times?</p> <p>25 A. No, what that does it returns the permeability to the</p> <p style="text-align: center;">Page 103</p>
<p>1 intended to force the gas-oil ratio trend of Oyo-5 to</p> <p>2 match that of Oyo-7?</p> <p>3 A. Correct, yes.</p> <p>4 Q. Okay? Then in the next paragraph you go on to explain</p> <p>5 what the changes were that you made.</p> <p>6 A. Yes.</p> <p>7 Q. First of all, you say that you increased the global</p> <p>8 permeability multiplier from 0.1 -- sorry, from 0.1 to</p> <p>9 0.2.</p> <p>10 A. Yes.</p> <p>11 Q. Yes? So that would effectively result in, as you say</p> <p>12 there, a five times reduction in field permeability</p> <p>13 instead of a ten times reduction.</p> <p>14 A. Correct.</p> <p>15 Q. So I will just check I've understood what that means.</p> <p>16 That means you've doubled the degree of permeability</p> <p>17 ascribed to the field as a whole; is that right?</p> <p>18 A. Yes, considering the high permeability in the geomodel,</p> <p>19 yes.</p> <p>20 Q. Okay. And then you say that you also removed the local</p> <p>21 relative permeability multiplier around Oyo-5, that's</p> <p>22 the box that was imposed by D&M; is that right?</p> <p>23 A. Yes, that's right.</p> <p>24 Q. Okay. And you replaced that with a local permeability</p> <p>25 multiplier around Oyo-5 of 1, 1.0?</p> <p style="text-align: center;">Page 102</p>	<p>1 permeability in the original geomodel that I received</p> <p>2 from D&M.</p> <p>3 Q. Okay. Right. And the way you justify what you are</p> <p>4 doing there is that you refer back to the data from the</p> <p>5 Oyo-1 cores; is that right?</p> <p>6 A. You'd have to remind me, sorry.</p> <p>7 Q. Yes. This is in your joint report, or at least your</p> <p>8 half of it.</p> <p>9 A. Right.</p> <p>10 Q. Page -- it is actually the genuinely joint bit,</p> <p>11 page 138. Sorry, the wrong page number. 198.</p> <p>12 A. Okay.</p> <p>13 Q. You say that it's within the range of data from Oyo-1</p> <p>14 cores 1 to 3.</p> <p>15 A. Mmm-hmm.</p> <p>16 Q. So that's where that comes from.</p> <p>17 A. Mmm-hmm.</p> <p>18 THE CHAIRMAN: Is that paragraph 6.15.3.14?</p> <p>19 MR NESBITT: Sorry, no, it's the paragraph before. So it is</p> <p>20 starts at the bottom page 197 and carries on on</p> <p>21 page 198, and the relevant explanation appears at the</p> <p>22 very end of the paragraph, where it says "which was</p> <p>23 within the range of data from Oyo-1 cores 1 to 3."</p> <p>24 Isn't what you are doing there relying on</p> <p>25 permeability data from core samples on other wells to</p> <p style="text-align: center;">Page 104</p>

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<p>1 justify the local permeability effects that you've</p> <p>2 applied around Oyo-5, which is a different well?</p> <p>3 A. Well, actually we don't -- in light of the</p> <p>4 interpretation I presented from Oyo-5 well test, what is</p> <p>5 the permeability around Oyo-5? Essentially we have got</p> <p>6 two wells that -- and I suspect this is why Eni drilled</p> <p>7 Oyo-5 where they did, because at the heel you've got</p> <p>8 Oyo-4, which is 150 metres away, and at the toe of Oyo-5</p> <p>9 you have Oyo-1, which is about 200 metres away. And it</p> <p>10 is only Oyo-1 that has core data for the whole field.</p> <p>11 So we're faced with a lack of data, and certainly what</p> <p>12 is the permeability in Oyo-5 is a question mark based on</p> <p>13 what I've seen of the well test.</p> <p>14 Q. Well, that's what you say in your joint report, but in</p> <p>15 your original report -- have you still got it there?</p> <p>16 A. Yes.</p> <p>17 Q. The top of page 148.</p> <p>18 A. Mmm-hmm.</p> <p>19 Q. Paragraph 4.2.4.2.</p> <p>20 A. Mmm-hmm.</p> <p>21 Q. Again, on the subject of permeability, you talk about</p> <p>22 the range in the Oyo-1 cores --</p> <p>23 A. Mmm-hmm.</p> <p>24 Q. And then you say those on Oyo-5 range from 340 to</p> <p>25 504 millidarcies. So you're talking about permeability</p> <p style="text-align: center;">Page 105</p>	<p>1 adjust the modelled volumes of oil and gas produced by</p> <p>2 Oyo-5.</p> <p>3 A. That is correct, yes.</p> <p>4 Q. Okay. But what you haven't done is actually taken any</p> <p>5 steps to model the effects of the alleged breaches of</p> <p>6 contract. You felt you couldn't do that. You're</p> <p>7 simply -- you're making an assumption, as indeed, as we</p> <p>8 saw earlier, D&M did in their report, that the gas</p> <p>9 incursion was caused by production management and/or</p> <p>10 cementing, and so you're adjusting the model behaviour</p> <p>11 of Oyo-5 to reflect how you think it ought to have</p> <p>12 behaved.</p> <p>13 A. Well, as I said, as simulators go they don't include</p> <p>14 anything on cement or wells or casing. It's not</p> <p>15 appropriate to use them to model any gas down poor</p> <p>16 cement, they are not designed for that. And as</p> <p>17 a reservoir engineer, my view is one of looking at what</p> <p>18 are the possible mechanisms that bring gas into a well.</p> <p>19 MR NESBITT: I think, Mr Chairman that's probably</p> <p>20 an appropriate moment to break.</p> <p>21 THE CHAIRMAN: Very good. Shall we resume at 1.30 pm and</p> <p>22 take a full hour. Thank you very much.</p> <p>23 MR NESBITT: Thanks.</p> <p>24 THE CHAIRMAN: The same rules apply, Dr Moy, you're not to</p> <p>25 discuss your testimony. See you all back at 1.30 pm.</p> <p style="text-align: center;">Page 107</p>
<p>1 in the hole range, you're not limiting your self --</p> <p>2 sorry, in the whole reservoir, you're not limiting</p> <p>3 yourself there.</p> <p>4 A. I'm sorry, I don't understand what your question is when</p> <p>5 you're talking about limiting. Could you clarify,</p> <p>6 please? (Pause).</p> <p>7 Q. I don't know what time you want to -- given we started</p> <p>8 early, Mr Chairman, what time you wanted to take the</p> <p>9 lunch break. It is just after 12.20 pm. I can go on</p> <p>10 for a bit longer, it is entirely up to you.</p> <p>11 THE CHAIRMAN: If it is a good point to stop we can stop</p> <p>12 now. If you would like to go on for --</p> <p>13 MR NESBITT: I can go on for a few more minutes happily.</p> <p>14 THE CHAIRMAN: Yes.</p> <p>15 MR NESBITT: Okay. So all of that that we just went</p> <p>16 through, Dr Moy, that was in an attempt to clarify how</p> <p>17 you interpreted the instruction that you got from the</p> <p>18 respondents to assume for the purposes of your "but for"</p> <p>19 forecast that there was no gas incursion into the well</p> <p>20 as a result of the way they put it "poor cementing or</p> <p>21 production mismanagement" --</p> <p>22 A. Mmm-hmm.</p> <p>23 Q. -- "such as aggressive beaning-up", et cetera. So what</p> <p>24 you did, your approach, was to make changes to the</p> <p>25 modelled permeability of the reservoir in order to</p> <p style="text-align: center;">Page 106</p>	<p>1 (12.23 pm)</p> <p>2 (The short adjournment)</p> <p>3 (1.30 pm)</p> <p>4 THE CHAIRMAN: Welcome back, everyone.</p> <p>5 MR NESBITT: Thank you, Mr Chairman.</p> <p>6 Dr Moy, turning to page 153 of your first amended</p> <p>7 report, bundle E2, tab 2.</p> <p>8 A. 152?</p> <p>9 Q. 153.</p> <p>10 A. Which section?</p> <p>11 Q. 4.2.7.1.</p> <p>12 A. Okay.</p> <p>13 Q. So this is the part of your report where you describe</p> <p>14 some of the assumptions that you make in running your</p> <p>15 "but for" forecasts.</p> <p>16 A. Right.</p> <p>17 Q. The first assumption is at 4.2.7.1, where you say that</p> <p>18 using the modified model that we discussed earlier on</p> <p>19 you set a maximum production rate of 7,000 barrels per</p> <p>20 day.</p> <p>21 A. Mmm-hmm.</p> <p>22 Q. And is that your interpretation of what a less</p> <p>23 aggressive approach to production would be? Is that why</p> <p>24 you took 7,000?</p> <p>25 A. It was, yes, to try and get something close to the rates</p> <p style="text-align: center;">Page 108</p>

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<p>1 that we see in Oyo-7 and 8, which is between 7 and 8,000</p> <p>2 barrels (inaudible).</p> <p>3 Q. Well, in --</p> <p>4 A. Sorry.</p> <p>5 Q. -- 4.7.2.3 where you are talking about the hypothetical</p> <p>6 Oyo B and C wells, you say:</p> <p>7 "These wells were also set on a maximum production</p> <p>8 rate of 7,000 barrels based on Allied guidelines."</p> <p>9 A. Mmm-hmm.</p> <p>10 Q. And guideline, according to the footnote, is the bean-up</p> <p>11 programme for Oyo-8.</p> <p>12 A. Right.</p> <p>13 Q. But that document doesn't contain any reference to</p> <p>14 limiting the maximum production rate to 7,000, so I was</p> <p>15 wondering in what sense it is a guideline for you?</p> <p>16 A. Well, if it doesn't, the 7,000 comes from the observed</p> <p>17 rate between 7 and 8 -- for Oyo-7 and 8. I think in the</p> <p>18 bean-up programme it specifies an assumed drawdown,</p> <p>19 which is a limit of 100 psi, but as you pointed out, it</p> <p>20 may not specify a rate, but I've taken something from</p> <p>21 the observed rates of Oyo-7 and 8.</p> <p>22 Q. So you're basing it on the drawdown from the bean-up?</p> <p>23 Is that what you're saying?</p> <p>24 A. No, no, we see in the production history of 7 and 8, but</p> <p>25 that the total fluid production of those wells I don't</p> <p style="text-align: center;">Page 109</p>	<p>1 A. I think it's been somewhere between -- it is certainly</p> <p>2 I think been over 8,000 barrels of liquid. I don't</p> <p>3 think it has gone above 9,000 barrels of liquid. Most</p> <p>4 of that is oil. The plateau rate we saw yesterday is</p> <p>5 probably in the -- just above 8,000 barrels of oil a day</p> <p>6 with no added water to that.</p> <p>7 Q. Okay. And, again, just sort of focusing on the 7,000</p> <p>8 figure, that's got nothing to do with your calculation</p> <p>9 of the critical rate for Oyo-5, is that right, it's</p> <p>10 unrelated to that? You're not concerned about the</p> <p>11 critical rate at this stage?</p> <p>12 A. No, because what we have -- the critical rate, as</p> <p>13 I described, is really something that theory shows and</p> <p>14 you would need something that had a finer grid cell to</p> <p>15 mimic that. So -- and also it depends what the</p> <p>16 permeability is. So I really was interested in using</p> <p>17 a rate which appeared from the actual data from 7 and 8</p> <p>18 to be approximately the right kind of rate to use in</p> <p>19 these horizontal wells.</p> <p>20 Q. Just for the benefit of the Tribunal, by critical rate</p> <p>21 we mean the rate above which gas coning will start to</p> <p>22 occur?</p> <p>23 A. That's correct, yes.</p> <p>24 Q. And just sticking with that for a moment, if you look</p> <p>25 across to page 152, you calculate the critical rate for</p> <p style="text-align: center;">Page 111</p>
<p>1 think exceeds 8,000 barrels of liquid. In the case of</p> <p>2 Oyo-8, that's pretty much all oil. So I took</p> <p>3 a 7,000 barrel limit as something that I thought was</p> <p>4 a good starting point.</p> <p>5 Q. Right. So it's based on the production history, it's</p> <p>6 not based on the bean-up programme at all, so your</p> <p>7 reference to the Oyo-8 bean-up programme is not correct.</p> <p>8 That's not the Allied guideline you mean.</p> <p>9 A. Well, let's take one step slightly back. If you're</p> <p>10 saying and reminding me that actually a rate isn't</p> <p>11 specified in that, then that's the case. If a rate is</p> <p>12 not specified in the start-up bean-up programme, then</p> <p>13 I've taken a rate from what we see in the actual field</p> <p>14 production.</p> <p>15 Q. Right. So not the bean-up programme. Okay.</p> <p>16 And in fact it would be slightly curious if you did</p> <p>17 rely on that document to dictate the maximum production</p> <p>18 rate over the life of the well because, as its name</p> <p>19 suggests, it's a bean-up programme, it's just for the</p> <p>20 first days of production.</p> <p>21 A. Certainly, yes. It's a bean-up programme.</p> <p>22 Q. So your starting point, 7,000 barrels per day, but just</p> <p>23 taking that figure, hasn't Oyo-8 been producing at</p> <p>24 levels significantly above 7,000 barrels for most of its</p> <p>25 productive life?</p> <p style="text-align: center;">Page 110</p>	<p>1 Oyo-5, it is at the top of the page, at 4.2.5.5 --</p> <p>2 A. Mmm-hmm.</p> <p>3 Q. -- as 9035 barrels per day; yes?</p> <p>4 A. Yes.</p> <p>5 Q. Okay. Although if we look at your joint report at tab 5</p> <p>6 in E3, page 175, you say there, in about the middle of</p> <p>7 the page, 6.2.10:</p> <p>8 "Using more realistic reservoir dimensions the</p> <p>9 results from the Chaperon equation indicates that Oyo-5</p> <p>10 would start to cone gas at rates around 6,000 barrels</p> <p>11 per day."</p> <p>12 A. Yes, right.</p> <p>13 Q. So if you're taking 7,000 as your "but for" scenario,</p> <p>14 are you saying that on that "but for" scenario Oyo-5</p> <p>15 would have been produced at above the critical rate?</p> <p>16 A. Well, what I am trying to show, both in the table at the</p> <p>17 bottom of 175 is how -- and hopefully what I showed to</p> <p>18 the Tribunal today is the sensitivity of this critical</p> <p>19 rate to whatever other parameters you might apply, in</p> <p>20 particular permeability.</p> <p>21 I've got a critical rate in the table of, say,</p> <p>22 6,000, but by adjusting the permeability you can see how</p> <p>23 sensitive the critical rate is to that. We see</p> <p>24 certainly in reality we have two other wells, 7 and 8,</p> <p>25 that don't appear to have coned in gas at those liquid</p> <p style="text-align: center;">Page 112</p>

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<p>1 rates. And I took those -- whatever Chaperon may</p> <p>2 suggest and you can adjust the parameters to get</p> <p>3 a different critical rate -- I took what we observed in</p> <p>4 the actual oilfield -- Oyo field as a good starting</p> <p>5 point for what I had in the model.</p> <p>6 Q. So in your original report you had over 9,000 for the</p> <p>7 critical rate, and in your joint report, based on the</p> <p>8 Chaperon equation, you've got 6,000, so you're relying</p> <p>9 on -- what you're saying is you relied on real</p> <p>10 observations, rather than Chaperon, is that right?</p> <p>11 A. Well, in this particular case I could see that -- well,</p> <p>12 we don't know what the true permeability is and that is</p> <p>13 obviously an important input into both Chaperon and</p> <p>14 Papatzacos equations. What we do have are two wells</p> <p>15 where we have seen them flowing at 8 -- 7 to</p> <p>16 8,000 barrels of liquid a day, and we don't seem to be</p> <p>17 getting any gas incursion. I thought that was pretty</p> <p>18 much a good starting point.</p> <p>19 Q. Now, your second assumption on page 153 for your "but</p> <p>20 for" forecast is that additional wells B and C -- this</p> <p>21 is paragraph 4.2.7.3 -- were scheduled to start</p> <p>22 production on 1 July 2012 and 31 December 2014</p> <p>23 respectively. As you say in the preceding paragraph,</p> <p>24 Oyo B and Oyo C are basically Oyo-7 and Oyo-8, except</p> <p>25 they've been brought forward by a considerable period of</p> <p style="text-align: center;">Page 113</p>	<p>1 A. Yes.</p> <p>2 Q. So, in other words, this scenario that you described, as</p> <p>3 we looked at earlier, this is your "but for" forecast</p> <p>4 taking into account all available information but</p> <p>5 without any timing restrictions; is that a fair way of</p> <p>6 putting it?</p> <p>7 A. That I believe was the intention, yes.</p> <p>8 Q. Yes. Yes. And what we're looking at on this page is</p> <p>9 your "but for" forecast as submitted in your amended</p> <p>10 report of 24 February; right?</p> <p>11 A. Mmm-hmm.</p> <p>12 Q. And that particular forecast did not change in the joint</p> <p>13 report, and nor did you change it in the letter that we</p> <p>14 got from Stephenson Harwood the day before the start of</p> <p>15 the hearing?</p> <p>16 A. I believe that's the case, yes.</p> <p>17 Q. This particular forecast was not affected by those two</p> <p>18 things; is that right?</p> <p>19 A. I believe that's the case, yes.</p> <p>20 Q. Okay. If you look at your table 6.1, there is a column</p> <p>21 there. It is four columns from the right-hand side</p> <p>22 headed "FGPR".</p> <p>23 A. Yes.</p> <p>24 Q. And that stands for field gas production rate?</p> <p>25 A. That's right, yes.</p> <p style="text-align: center;">Page 115</p>
<p>1 time. So while you say 1 July 2012 for Oyo B and</p> <p>2 31 December 2014 for Oyo C, Oyo-8 was spudded in</p> <p>3 May 2015 and Oyo-7 in June 2015; right?</p> <p>4 A. Yes.</p> <p>5 Q. And the basis for you bringing the start of production</p> <p>6 for your two hypothetical wells forward so significantly</p> <p>7 is purely Mr Omidele's fact evidence; correct?</p> <p>8 A. Yes.</p> <p>9 Q. Okay. Now, can we just take a look at what your "but</p> <p>10 for" forecasts show.</p> <p>11 A. Mmm-hmm.</p> <p>12 Q. So if you go to page 170, and forgive me, it's not</p> <p>13 entirely straightforward to follow, this is the annex to</p> <p>14 your amended report. On page 170 is where you've</p> <p>15 tabulated your "but for" case --</p> <p>16 A. Mmm-hmm.</p> <p>17 Q. -- which is called "Amended Oyo scenario 3A12".</p> <p>18 THE CHAIRMAN: Excuse me, could you give me the internal</p> <p>19 page reference number?</p> <p>20 MR NESBITT: 49.</p> <p>21 THE CHAIRMAN: Thank you very much.</p> <p>22 MR NESBITT: Now, in the body of your report you explain</p> <p>23 that this is your forecast based on information as of</p> <p>24 31 December 2015 assuming less gassy Oyo-5, if applying</p> <p>25 internationally acceptable petroleum industry practices.</p> <p style="text-align: center;">Page 114</p>	<p>1 Q. And what we can see, looking down, it obviously starts</p> <p>2 at zero on 5 December 2009, the start of production,</p> <p>3 bearing in mind that this is your "but for" case, and it</p> <p>4 stays fairly constant through the to the end of</p> <p>5 December, 7 February/18 February 2010, at about 4,500.</p> <p>6 And then on 1 April 2010 the rate shoots up to 8,170.</p> <p>7 A. Yes.</p> <p>8 Q. And from there it increases pretty rapidly to 40,000-odd</p> <p>9 in July.</p> <p>10 A. Mmm-hmm.</p> <p>11 Q. And continues increasing all the way up to 60,000.</p> <p>12 A. Yes.</p> <p>13 Q. That to me, the wholly-untrained eye, that looks like</p> <p>14 a pretty rapid increase in gas. Does it not to your eye</p> <p>15 indicate gas ingression from the gas cap?</p> <p>16 A. Well, one would need to calculate the GORs and compare</p> <p>17 those with the ones that were observed in reality.</p> <p>18 Certainly I suspect that if one were to do that they</p> <p>19 would be lower. We know that the model is not perfect</p> <p>20 in showing gas coning in its true sense, and what</p> <p>21 happens when gas starts to cone we saw yesterday some</p> <p>22 cross sections of the model showing gas coming into the</p> <p>23 well, and it was very telling that because of the</p> <p>24 composition of the grid cells there were a number of</p> <p>25 inactive cells that represent shale, and</p> <p style="text-align: center;">Page 116</p>

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<p>1 stochastically -- both models have been populated</p> <p>2 stochastically. So the gas that we see in the model is</p> <p>3 very much influenced by the well path that it takes due</p> <p>4 to these shale blocks, which actually -- which in</p> <p>5 reality aren't there as big blocks of shale acting as</p> <p>6 barriers.</p> <p>7 So that's -- you would need, first of all, to look</p> <p>8 at the GOR in this model, and the fact that there may be</p> <p>9 oil coming down or appears to come down from the gas cap</p> <p>10 is due very much to the gross size of the cells and also</p> <p>11 the presence of these inactive cells which represent</p> <p>12 blocks of shale. In reality, the real reservoir doesn't</p> <p>13 have that.</p> <p>14 Q. So let me just put the question again. Aren't the</p> <p>15 volumes of gas showing in your "but for" scenario simply</p> <p>16 too large for the gas to be coming from anywhere other</p> <p>17 than the gas cap on your "but for" model? Yes or no?</p> <p>18 A. Well, we saw yesterday that --</p> <p>19 Q. Yes or no?</p> <p>20 A. -- gas was coming was coming from the gas cap in those</p> <p>21 models.</p> <p>22 Q. So it's a yes?</p> <p>23 A. Yes.</p> <p>24 Q. Okay. So would you agree that what this data shows is</p> <p>25 that even on your "but for" scenario, i.e. on the basis</p> <p style="text-align: center;">Page 117</p>	<p>1 well from the gas cap as a result of the natural</p> <p>2 features of the reservoir; correct?</p> <p>3 A. No, I would say that essentially the model, as I've</p> <p>4 pointed out, is imperfect. We've got large grid cells.</p> <p>5 We do get gas coming in. It's on a gross scale. It's</p> <p>6 not actually mirroring the type of coning that you would</p> <p>7 expect. So there is gas in the model coming into the</p> <p>8 well. It's still less gassy than the historic Oyo-5.</p> <p>9 In order to get a model that would really represent what</p> <p>10 was going on, you would need a complete rebuild.</p> <p>11 Q. So what you're saying is we can't rely on your model,</p> <p>12 and we can't rely on the data coming out of it?</p> <p>13 A. No, what you can do, you can see clearly that actually</p> <p>14 by reducing the gas production you are increasing the</p> <p>15 oil, and that is still true whatever model you use.</p> <p>16 Q. Dr Moy, do you place any value on your model at all?</p> <p>17 A. I do, yes. I do because D&M have been involved in this</p> <p>18 project for several years. They've spent a lot of time</p> <p>19 both creating the structure, populating the grid cells.</p> <p>20 They are a very experienced company. So all the</p> <p>21 indications suggest that it's -- a lot of time has been</p> <p>22 spent on it.</p> <p>23 Q. Although, as we saw earlier, when you were discussing</p> <p>24 with Ms Wilford for a different purpose; yes?</p> <p>25 A. No, I don't agree with that at all.</p> <p style="text-align: center;">Page 119</p>
<p>1 that Oyo-5 was managed in accordance with</p> <p>2 internationally acceptable practices, et cetera, that</p> <p>3 Oyo-5 was still experiencing very significant levels of</p> <p>4 gas incursion from the gas cap?</p> <p>5 A. What it shows is that if you moderate the gas production</p> <p>6 you will increase your oil recovery. That's very clear.</p> <p>7 This "but for" Oyo-5 is less, less gassy than the</p> <p>8 historic Oyo-5 and, as I pointed out in the first slide,</p> <p>9 minimising your gas production maximises your oil</p> <p>10 recovery.</p> <p>11 Q. So I will ask the question again. Do you agree that</p> <p>12 this data shows that even on your "but for" scenario</p> <p>13 Oyo-5 still experiences very significant levels of gas</p> <p>14 incursion from the gas cap; yes or no?</p> <p>15 A. From this model you can see that gas is coming from the</p> <p>16 gas cap.</p> <p>17 Q. That is a "yes".</p> <p>18 So if you go back to your original instructions, you</p> <p>19 don't need to turn them up, appear to be worded rather</p> <p>20 carefully, so when you are asked to assume, and I quote,</p> <p>21 that:</p> <p>22 "There was no gas incursion into the well as</p> <p>23 a result of poor cementing or production mismanagement."</p> <p>24 That doesn't exclude that even on your "but for"</p> <p>25 scenario there could still be a gas incursion into the</p> <p style="text-align: center;">Page 118</p>	<p>1 Q. You don't agree with that?</p> <p>2 A. No, I don't.</p> <p>3 Q. Okay. Now, the other thing that Stephenson Harwood</p> <p>4 instructed you to do was to use your model to run</p> <p>5 a number of other forecasts of production from the</p> <p>6 field.</p> <p>7 A. Mmm-hmm.</p> <p>8 Q. And to the extent that there was actual production data</p> <p>9 available from the field, you relied on that data?</p> <p>10 A. I think I did, yes.</p> <p>11 Q. Yes?</p> <p>12 A. Yes.</p> <p>13 Q. Well, hopefully, because you say in your report -- you</p> <p>14 don't need to turn it up -- but you say at page 160:</p> <p>15 "The model used actual Oyo-7 and 8 production data</p> <p>16 until 1 January 2016."</p> <p>17 Which must have been the last date that you had</p> <p>18 actual available for.</p> <p>19 A. Yes.</p> <p>20 Q. "... and thereafter the model ran in forecast mode to</p> <p>21 generates profiles for both wells."</p> <p>22 A. That's correct.</p> <p>23 Q. And presumably you got the data that you relied upon</p> <p>24 from Allied. They supplied it.</p> <p>25 A. Yes, they did.</p> <p style="text-align: center;">Page 120</p>

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<p>1 Q. And was it certified in any way? Did you check it in</p> <p>2 any way or maybe you had no way of checking it's</p> <p>3 accuracy?</p> <p>4 A. Well, I -- one has to assume that when you're given data</p> <p>5 like this from a company like that that it's true. And</p> <p>6 how would one go about verifying it? Because it's not</p> <p>7 in the public domain not in the detail we received. So</p> <p>8 you have to take on trust that it's true.</p> <p>9 Q. Okay. As we've seen, the various forecasts that you</p> <p>10 produced on the basis of that data and your model are in</p> <p>11 annex 6 to your report.</p> <p>12 A. Mmm-hmm.</p> <p>13 Q. And this is where the various changes that you've made</p> <p>14 to your report become relevant, and I mentioned earlier</p> <p>15 the first revision that you made. So we've got your</p> <p>16 report -- I think your report was originated</p> <p>17 18 February, and we got it on the 19th, and then we got</p> <p>18 a different version on the 23rd or 24th. But anyway if</p> <p>19 we perhaps turn to your covering letter, which is at</p> <p>20 tab 3 of bundle E2 --</p> <p>21 A. Mmm-hmm.</p> <p>22 Q. -- of your first revised report. Essentially this</p> <p>23 letter addressed to Mr Wade at Stephenson Harwood</p> <p>24 explains that you had made two errors in the original</p> <p>25 version of your report, which you're now seeking to</p> <p style="text-align: center;">Page 121</p>	<p>1 this is the one we looked at earlier but this time this</p> <p>2 is the marked-up version.</p> <p>3 A. Hmm.</p> <p>4 Q. So it shows the word "amended" in red and underlined.</p> <p>5 A. Mmm-hmm.</p> <p>6 Q. And then if you look carefully you can see a red</p> <p>7 underlining at the very bottom of the entire table,</p> <p>8 which I suppose is intended to indicate that the figures</p> <p>9 had changed. But the actual table only shows one set of</p> <p>10 figures, so it is quite difficult to compare your</p> <p>11 original figures with your amended figures. You need to</p> <p>12 flick between the two versions of the report.</p> <p>13 But if we do that and we compare the forecast actual</p> <p>14 total oil production from the field as of, I think, the</p> <p>15 end date is 27 February 2021, that gives you a total of</p> <p>16 about 16.34 million barrels?</p> <p>17 A. I believe that's the case, yes.</p> <p>18 Q. Yes. And if you look at the version -- the figure in</p> <p>19 the amended report on the same date, this is page 250 of</p> <p>20 the amended report, the figure at the very, very end</p> <p>21 you've got 18.85 million barrels approximately --</p> <p>22 A. Yes.</p> <p>23 Q. -- which is an increase of more than 15 per cent in the</p> <p>24 total forecast oil production from the field. Or put</p> <p>25 another way, it is a difference of about</p> <p style="text-align: center;">Page 123</p>
<p>1 correct with the first revised report. If I can</p> <p>2 paraphrase, the first of those, number 1 in your letter,</p> <p>3 appears to be that the "but for" forecast, which had</p> <p>4 supposedly taken into account all information, had not</p> <p>5 in fact taken into account the shut-in of Oyo-8 between</p> <p>6 September 2015 and March 2016.</p> <p>7 A. Right, yes.</p> <p>8 Q. Correct?</p> <p>9 A. Mmm-hmm.</p> <p>10 Q. And the second mistake was that you -- or the second</p> <p>11 change of heart, I suppose, is that you had decided it</p> <p>12 was necessary to apply the same global permeability</p> <p>13 modifier to all of your models in order to ensure</p> <p>14 comparability between the resulting forecasts.</p> <p>15 A. Yes.</p> <p>16 Q. And so what you did was you increased the global</p> <p>17 permeability modifier in your actual v2_3 scenario to</p> <p>18 match what you had done in your "but for" scenario; yes?</p> <p>19 A. That's correct, yes.</p> <p>20 Q. That change, the change to the global permeability</p> <p>21 modifier, had a significant effect, didn't it?</p> <p>22 A. Yes, yes, it does.</p> <p>23 Q. And we can see that if we look at the markup at tab 4,</p> <p>24 the next tab, this is the marked up version of your</p> <p>25 original report, if you look at page 248, I think it is,</p> <p style="text-align: center;">Page 122</p>	<p>1 2.5 million barrels.</p> <p>2 A. Yes.</p> <p>3 Q. Do you agree with that?</p> <p>4 A. Yes.</p> <p>5 Q. Okay. Then in your joint report with Mr Filippi you</p> <p>6 again said that you had made an error, and that's -- if</p> <p>7 we turn to bundle E3, containing your joint report, at</p> <p>8 tab 5, and I am looking at page 193. This is in the</p> <p>9 body of your half of the joint report. It is about</p> <p>10 halfway down the page 16.15.2.5. I am sure you're very</p> <p>11 familiar with this.</p> <p>12 There you say that:</p> <p>13 "The plots shown in figures 4, 5 and 43 as Dr Moy of</p> <p>14 BF1 have been taken from actual v2_3. However, this has</p> <p>15 been run as a 'but for' case with a global multiplier of</p> <p>16 0.2 instead of 0.1. This result is in a less gassy</p> <p>17 Oyo-5 and consequent impact on overall reservoir</p> <p>18 pressure and well performance.</p> <p>19 "I acknowledge that this run was incorrectly run</p> <p>20 with a multiplier of 0.2 and I present in annex 9.4 the</p> <p>21 results of the same run but using a multiplier of 0.1."</p> <p>22 A. Mmm-hmm.</p> <p>23 Q. I have to be honest, I'm not entirely sure what you mean</p> <p>24 by the actual having been run as a "but for" case, but</p> <p>25 leaving that point to one side, what appears to be going</p> <p style="text-align: center;">Page 124</p>

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<p>1 on here is in essence that you changed your mind back</p> <p>2 and decided you were going to use the 0.1 global</p> <p>3 permeability modifier for your forecasts of actual</p> <p>4 production from the field after all; yes?</p> <p>5 A. No, I was struggling with the fact that the D&M model we</p> <p>6 received or I received certainly had a multiplier of</p> <p>7 0.1, so what you use for generating the actual profiles.</p> <p>8 So I initially have used the 0.1 consistency would</p> <p>9 suggest using -- sticking with the 0.2 modifier in both</p> <p>10 the actual and the "but for" cases, in which case there</p> <p>11 is a difference of over 2 million barrels.</p> <p>12 Q. Okay. So you say you didn't change your mind, but in</p> <p>13 the letter we just looked at from 24 February you</p> <p>14 explained that the precise reason that you had amended</p> <p>15 your report or one of the two reasons was that you</p> <p>16 wanted to be consistent, and so you used 0.1 instead of</p> <p>17 0.2.</p> <p>18 A. Mmm-hmm.</p> <p>19 Q. But then you changed that back again in your joint</p> <p>20 report. Isn't that changing your mind?</p> <p>21 A. Well, it's considering what the information is and --</p> <p>22 Q. Or changing your opinion, if you prefer.</p> <p>23 A. Potentially. Because, as I said, the model I received</p> <p>24 had a multiplier of 0.1. Do I keep that for generating</p> <p>25 the actual forecasts or do I make that consistent with</p> <p style="text-align: center;">Page 125</p>	<p>1 A. Yes.</p> <p>2 Q. And then the black crosses are your revised match; yes?</p> <p>3 A. That's correct.</p> <p>4 Q. But the black crosses don't appear to be anywhere near</p> <p>5 the plot for the lines showing the historical figures.</p> <p>6 A. Mmm-hmm. Well --</p> <p>7 Q. In fact they appear to be further away than your initial</p> <p>8 run, the dotted line. So I was just curious to know why</p> <p>9 you thought that achieved a better history match, or</p> <p>10 maybe you don't think it did?</p> <p>11 A. Well, as I said, there are -- we have issues here with</p> <p>12 the permeability. We don't know what the permeability</p> <p>13 is. The model honours the log data.</p> <p>14 Q. Sorry, just to interrupt, but everything seems to come</p> <p>15 back to not knowing what the permeability is.</p> <p>16 A. It is, it's true.</p> <p>17 Q. So does --</p> <p>18 A. You've seen the data that I've presented in the slides,</p> <p>19 and the uncertainty as to what exactly is the average</p> <p>20 permeability in the reservoir.</p> <p>21 Q. Well, I've seen that you've changed your mind at least</p> <p>22 twice on what permeability modifier to use.</p> <p>23 A. In the actual scenario, yes. When we received the D&M</p> <p>24 model, the model had been history matched on gas rate,</p> <p>25 and when you swap it over to oil rate you get this</p> <p style="text-align: center;">Page 127</p>
<p>1 the 0.2 I've used in the "but for" case.</p> <p>2 Q. So it was a potential change of opinion but you're not</p> <p>3 prepared to agree with me that it was an actual change</p> <p>4 of opinion?</p> <p>5 A. Well, okay, I changed my opinion.</p> <p>6 Q. Okay. Now, in your joint report you also included</p> <p>7 a revised set of history match comparison plots, which</p> <p>8 you appear to have done in an attempt to improve your</p> <p>9 history match and improve the credibility of your model.</p> <p>10 If we just take a quick look at those history match</p> <p>11 plots, and you'll find those in bundle E3 at tab 5,</p> <p>12 page -- I think they start on 216. Do you recognise</p> <p>13 those?</p> <p>14 A. I do, yes.</p> <p>15 Q. Let's look at the ones on 218.</p> <p>16 Now, if we take, for example -- let's take the one</p> <p>17 for the gas rate at the bottom, that's figure 9CC.</p> <p>18 A. Mmm-hmm.</p> <p>19 Q. So the thick red line is Dr Moy's gas rate; yes? Sorry,</p> <p>20 Mr Filippi's gas rate.</p> <p>21 A. It is, yes.</p> <p>22 Q. The dotted line is your original forecast, and the dots,</p> <p>23 which are quite hard to spot but they are there, is</p> <p>24 history, that's actual, which only goes up to a certain</p> <p>25 point.</p> <p style="text-align: center;">Page 126</p>	<p>1 increase in gas at the beginning when it matches the</p> <p>2 oil, but you don't get a match with the gas. If you</p> <p>3 switch it over, as it was when we received it, you get</p> <p>4 a match to the gas. You don't get a match to the oil</p> <p>5 but it's not as apparent.</p> <p>6 The issue I think is -- is one of permeability.</p> <p>7 Q. Would you go so far as to say that what you say is the</p> <p>8 lack of information available to you about permeability</p> <p>9 means that the information that you've produced can't be</p> <p>10 relied upon or is that too harsh?</p> <p>11 A. That's not the case.</p> <p>12 Q. It's not the case?</p> <p>13 A. No.</p> <p>14 Q. It can be relied on?</p> <p>15 A. Yes, within the bounds of what's in the model, yes.</p> <p>16 Q. But as we've seen you're -- just looking at that example</p> <p>17 on page 218 -- your model -- even after all your changes</p> <p>18 of mind and revisions, your model still doesn't match</p> <p>19 history while Mr Filippi's does.</p> <p>20 A. Well, Mr Filippi's model, as we saw yesterday, doesn't</p> <p>21 honour the log data.</p> <p>22 Q. I think Mr Filippi would take very strong issue --</p> <p>23 A. I am sure he would --</p> <p>24 Q. -- with that suggestion.</p> <p>25 A. -- but it's a view based upon my observation.</p> <p style="text-align: center;">Page 128</p>

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<p>1 Q. And this again, I'm not asking you to explain it again, 2 but when you say the log data you're referring to the 3 porosity log data? 4 A. Yes. 5 Q. I see. If we turn to -- stay in bundle E3, you should 6 hopefully have a tab 5.1. Have you got that? 7 A. I have, yes. 8 Q. This is the last letter that we have seen from you to 9 Mr Wade at Stephenson Harwood. 10 A. Mmm-hmm. 11 Q. This was on 14 June 2016, which is about a week after 12 the joint report -- 13 A. Yes. 14 Q. -- and, as I've said the night before this hearing 15 started. What you say in this letter is: 16 "I am writing to notify you that the current table 17 shown in the joint report in section 9.4.11 is not the 18 one appropriate for the scenario described in 19 section 6.15.2.5 in the joint report and section 4.2.9 20 of my original report. The profile represents 21 a scenario where Oyo-5 is produced at historic gas 22 rates, whereas the table should show results for the 23 same model but with Oyo-5 produced at historic oil 24 rates." 25 A. Yes.</p> <p style="text-align: center;">Page 129</p>	<p>1 the gas rate calculations, not the oil rate 2 calculations. 3 A. No. 4 Q. You say it was controlled on the gas rate. 5 A. That's correct. Let me clarify what you get in 6 an ECLIPSE file. It's a text file of instructions that 7 run a simulator. So you would have a date, which would 8 be, say, monthly, and then you would have a command word 9 that would say which well you're commanding, and then 10 you would have a series of oil, water, gas volumes. 11 There's a keyword at the beginning of that which defines 12 which one simulator one is going to be told to use as 13 a control rate. So it can be gas, it could be oil. In 14 theory you could also control on water. So the original 15 file that we received from D&M had the well controlled 16 on gas rates, and you had to go through and manually 17 change that to an oil rate. The numbers in the 18 particular line don't change, it just -- it just takes 19 note of the different -- it just controls it on 20 a different phase. 21 Q. Right. And you forgot to do that? 22 A. We ran it on both but it so happens that this particular 23 table showed the results of it being run on gas rate. 24 THE CHAIRMAN: Excuse me, if I may. Could you tell me what 25 columns change in the table?</p> <p style="text-align: center;">Page 131</p>
<p>1 Q. "In both cases the model was run with the permeability 2 modifier of 0.1." 3 Presumably by saying "the current table is not the 4 one appropriate for the scenario", that's another way of 5 saying it's the wrong one? 6 A. It was the wrong run. As I said here, when you run 7 theses simulations you define what is the -- the 8 controlling phase, and the model as received from D&M in 9 the original ECLIPSE file had Oyo-5 controlled on the 10 gas rate. And so the original table basically is the 11 oil -- the simulated oil rate based on historic gas 12 production. 13 Q. So if I -- 14 A. So that was done in error, and so the correct table 15 should in fact show the same run, i.e. the same physical 16 reservoir model, but now the only difference is that 17 Oyo-5 is then simulated using historic oil rates, and 18 the gas rates are then generated by the simulator. 19 Q. So when you say the model received from D&M in the 20 original ECLIPSE file at Oyo-5 controlled on the gas 21 rate -- 22 A. Yes. 23 Q. -- you seem to be suggesting in the D&M model the gas 24 rate was set as a default, and you didn't really notice 25 that, and so when you ran the calculations, they were</p> <p style="text-align: center;">Page 130</p>	<p>1 A. Are we looking -- 2 THE CHAIRMAN: Or is it a totally different table because 3 I am a little bit lost. 4 A. Sure. If you look at the -- the first column, which is 5 the Oyo-5, you can tell which one is which because the 6 third number, which in this table here is 7790, that's 7 when the well is controlled on oil rate. When you see 8 that number is 4,400, that's when the model is being 9 controlled on gas rate. So that's an easy way for me 10 certainly to recognise which table is which. 11 THE CHAIRMAN: Okay. Which column is that which has the 12 4,000 -- 13 A. It would be -- well, if it were in the table it would be 14 the second column. The WOPR Oyo-5 column. 15 THE CHAIRMAN: Okay. So if I am looking at the 0.1, that's 16 the revised one? The first line is zero. 17 A. The first line -- the third line is 7790. 18 THE CHAIRMAN: Yes. 19 A. Then the models is controlled on oil rate. 20 THE CHAIRMAN: Now, the prior one had -- 21 A. Something like 44-something-something, which is Oyo-5 -- 22 the same model, physically the same grid, but the well 23 is controlled on historic gas rates and then as 24 a consequence the calculated oil rate is less. It is 25 4,400.</p> <p style="text-align: center;">Page 132</p>

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<p>1 THE CHAIRMAN: So you had the choice between having the 2 actual gas rate or the actual oil rate, and you ran it 3 the first time on one and the second time on the other; 4 is that --</p> <p>5 A. Yes, it is being run on both. And the model as received 6 from D&M was run on gas rates.</p> <p>7 THE CHAIRMAN: Please.</p> <p>8 MR NESBITT: Just to make sure we've all understood this, so 9 the set of production forecast data that you included in 10 the joint report took the gas as its input or, if I may 11 use the reservoir engineer-speak, honoured the gas?</p> <p>12 A. I would need to verify what tables were in the joint 13 report.</p> <p>14 Q. I think that's what you just said, unless I am 15 fundamentally misunderstanding.</p> <p>16 A. The correct profiles would be ones where Oyo-5 is run on 17 historic oil rates --</p> <p>18 Q. Yes.</p> <p>19 A. -- and the gas rates are the ones that are calculated 20 along with the water.</p> <p>21 Q. Right.</p> <p>22 THE CHAIRMAN: June 14 -- sorry, I can't resist, I am trying 23 to figure out -- June 14 is being run on historic oil 24 rates; right?</p> <p>25 MR NESBITT: No -- yes.</p> <p style="text-align: center;">Page 133</p>	<p>1 still based on having different permeability modifiers. 2 If I've understood correctly you've got 0.1 for the 3 actual and 0.2 for the "but for".</p> <p>4 A. Mmm-hmm.</p> <p>5 Q. Which directly contradicts what you said in your first 6 letter to Mr Wade back in February, about the need to 7 ensure that the same modifier was used in all of the 8 models.</p> <p>9 A. Yes.</p> <p>10 Q. So we now have the situation where even in the figures 11 that you've just confirmed you're happy with, we have 12 a "but for" reservoir that is attributed with double the 13 permeability of the actual reservoir. So you're 14 comparing apples with oranges, aren't you? They are not 15 comparable?</p> <p>16 A. Okay.</p> <p>17 Q. And wouldn't they need to be comparable if they are 18 going to be used as the basis for a damages calculation?</p> <p>19 A. Absolutely. The issue of whether the actual is run on 20 0.1 or 0.2 consistency would strongly suggest that they 21 need to be run with the same multiplier, and that would 22 be 0.2, considering the uncertainty we have on the 23 actual permeabilities in the reservoir. So this has 24 been something I've considered at quite some length, and 25 I think consistency has to suggest that you've got to</p> <p style="text-align: center;">Page 135</p>
<p>1 A. Yes, exactly.</p> <p>2 MR NESBITT: That was the correction.</p> <p>3 A. Yes, so it has got the table with the 7790 in it, the 4 second column.</p> <p>5 Q. But as I think you replied in response to a question 6 from Ms Wilford earlier on, you were aware that your 7 calculations are being used by Mr Taylor for the 8 purposes of the damages -- your forecast is being used 9 for the purposes of the damages calculation.</p> <p>10 A. Mmm-hmm.</p> <p>11 Q. And one might have thought that you would be mindful 12 that producing historical -- producing figures based on 13 gas were not terribly useful for the purposes of 14 calculating a damages claim for loss of oil production.</p> <p>15 A. Mmm-hmm.</p> <p>16 Q. But it was just a mistake, an oversight?</p> <p>17 A. Well, yes, both runs were one done, one on oil, one on 18 gas. Oil is present in both runs. In fact, if you run 19 it on gas you get a smaller oil profile, which would 20 actually increase the difference between the actual and 21 "but for".</p> <p>22 Q. Can we assume that you're now happy with the set of 23 figures that you've finally produced.</p> <p>24 A. Yes.</p> <p>25 Q. Good. However, as you said in your 14 June letter, it's</p> <p style="text-align: center;">Page 134</p>	<p>1 compare apples with apples.</p> <p>2 Q. Okay. So your response to my earlier question that you 3 were happy with your figures can't be right, because you 4 appear to have changed your mind back again to the 5 position as set out in your letter of 23 February.</p> <p>6 A. I am happy now, having considered it, that the 7 appropriate multiplier to use in all the cases is 0.2.</p> <p>8 Q. Would you like to rerun the forecasts again?</p> <p>9 A. Sorry?</p> <p>10 Q. Would you like to rerun the forecasts again? Not now, 11 obviously.</p> <p>12 A. Why?</p> <p>13 Q. Okay. Oyo-7 and Oyo-8, you're aware obviously that the 14 respondents' position is that there has been no gas 15 incursion from the gas cap into Oyo-7 and Oyo-8.</p> <p>16 A. Correct.</p> <p>17 Q. And you obviously -- you agree with that assertion?</p> <p>18 A. I believe the evidence suggests that that's the case.</p> <p>19 Q. Okay. So although you acknowledge that -- I think in 20 various places -- that there is an increasing GOR in 21 Oyo-7, your position is that the increase in GOR in 22 Oyo-7 is solely attributable to solution gas; is that 23 right?</p> <p>24 A. From the information I have, yes.</p> <p>25 MR NESBITT: Okay, thank you. I have no further questions</p> <p style="text-align: center;">Page 136</p>

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<p>1 for Dr Moy, Mr Chairman, thank you.</p> <p>2 THE CHAIRMAN: No direct, no questions?</p> <p>3 MR GUNNING: No.</p> <p>4 THE CHAIRMAN: Thank you very much, Dr Moy, you are excused</p> <p>5 as a witness and as an expert.</p> <p>6 Now, shall we next have the quantum experts.</p> <p>7 MR NESBITT: Mr Good. Shall we not leave the room but just</p> <p>8 two minutes just while Mr Good sets up.</p> <p>9 THE CHAIRMAN: That's permitted.</p> <p>10 MR NESBITT: The Tribunal is getting increasingly keen on</p> <p>11 breaks as the day wears on.</p> <p>12 (2.13 pm)</p> <p>13 (A short break)</p> <p>14 (2.20 pm)</p> <p>15 MR NICHOLAS GOOD (called)</p> <p>16 THE CHAIRMAN: Mr Good, welcome. You've provided an expert</p> <p>17 report in these proceedings.</p> <p>18 A. I did.</p> <p>19 THE CHAIRMAN: And you signed a joint report with Mr Taylor.</p> <p>20 A. That's correct.</p> <p>21 THE CHAIRMAN: And you understand your duty to express your</p> <p>22 best professional opinions to the Tribunal?</p> <p>23 A. I do.</p> <p>24 THE CHAIRMAN: Very good.</p> <p>25 Examination-in-chief by MR NESBITT</p> <p style="text-align: center;">Page 137</p>	<p>1 So, first of all, moving to the respondents'</p> <p>2 counterclaim, and then I will look at the final</p> <p>3 adjustment statement, and if you like the good news is</p> <p>4 that the much of the computation and the underlying</p> <p>5 invoice checking and analysis work is agreed between</p> <p>6 myself and Mr Taylor of Navigant instructed by the</p> <p>7 respondents.</p> <p>8 There are two columns in the respondents'</p> <p>9 counterclaim here. The counterclaim is calculated by</p> <p>10 looking at the production flows that have happened or</p> <p>11 are estimated will happen in the actual world as</p> <p>12 compared to the so-called "but for" world, the world</p> <p>13 without the matter complained of, leading to</p> <p>14 a differential set of oil production flows. Therefore,</p> <p>15 the key and significant input into the quantification is</p> <p>16 the oil production flows.</p> <p>17 On the right, we have the quantification using</p> <p>18 Mr Filippi's forecasts, and just to the left of that is</p> <p>19 that using Dr Moy's forecasts and, as you can see, they</p> <p>20 come down to quite different figures, pre-interest --</p> <p>21 these calculations are all before interest -- of</p> <p>22 \$498.7 million using Dr Moy's forecasts and \$5.8 million</p> <p>23 using Mr Filippi's forecasts.</p> <p>24 As I say, the actual quantification, taking the oil</p> <p>25 production as the input, is all agreed in terms of oil</p> <p style="text-align: center;">Page 139</p>
<p>1 MR NESBITT: Good afternoon, Mr Good. I think you have in</p> <p>2 front of you a copy of your own report, which should be</p> <p>3 at tab 5 of bundle B2.</p> <p>4 A. Yes.</p> <p>5 Q. And I think to your left there is a bundle containing at</p> <p>6 tab 4 a copy of your joint report with Mr Taylor.</p> <p>7 A. Yes, subsequently amended by the version in tab 6.</p> <p>8 Q. Indeed. And there is nothing in either of those</p> <p>9 reports, apart from your explanations that you're going</p> <p>10 to give in your presentation, there is nothing that you</p> <p>11 wish to clarify or indeed amend?</p> <p>12 A. No.</p> <p>13 Q. And all of your reports contain your independent</p> <p>14 professional opinion on the matters on which you've been</p> <p>15 instructed?</p> <p>16 A. They do.</p> <p>17 MR NESBITT: Thank you very much. The floor is yours.</p> <p>18 Presentation by MR GOOD</p> <p>19 MR GOOD: Thank you. Members of the Tribunal, as I say, my</p> <p>20 name is Nicholas Good. I am a partner in KPMG in</p> <p>21 London, a firm of chartered accountants. I will spend</p> <p>22 about 15 minutes on this presentation.</p> <p>23 I am instructed by NAE to consider two issues, the</p> <p>24 quantification of the respondents' counterclaim and the</p> <p>25 elements of the final adjustment statement.</p> <p style="text-align: center;">Page 138</p>	<p>1 prices, future oil prices, costs, estimated costs,</p> <p>2 discount rate. That's all dealt with, and we don't need</p> <p>3 to speak about that further.</p> <p>4 There are only two points, therefore, of interest or</p> <p>5 to pull out from this. Firstly, as you'll see halfway</p> <p>6 down there is a line "CPL's loss attributed to Allied</p> <p>7 and CINL's beneficial interest", as I understand it,</p> <p>8 these are matters still in dispute as to whether a loss</p> <p>9 incurred by CPL forms part of the counterclaim.</p> <p>10 The second point to pull out is near the top under</p> <p>11 "Allied's loss", part of the way in which this is</p> <p>12 quantified is that the NAE beneficial interest, having</p> <p>13 been purchased by Allied in early 2012, was then sold on</p> <p>14 to CPL in February 2014. And you'll have heard about</p> <p>15 that deal. I wasn't here but I read in the transcript</p> <p>16 that Dr Lawal confirmed that the consideration for that</p> <p>17 deal was approximately \$570 million.</p> <p>18 The way in which this figure in these tables has</p> <p>19 been computed, though, is quite different and doesn't</p> <p>20 bear any relation to that figure. This has been</p> <p>21 computed as the difference between -- based on --</p> <p>22 looking at the Dr Moy column, an estimated future oil</p> <p>23 production at that date in an actual scenario and in</p> <p>24 a scenario "but for" what is complained of, and the</p> <p>25 values there are 150 million as an estimated actual</p> <p style="text-align: center;">Page 140</p>

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<p>1 value at that date and approximately 180 million "but 2 for" the matter that was complained of. 3 It is worth pointing out that's not directly 4 comparable, the 150 million being the amount in the 5 actual, compared to the 570 million-odd, because on to 6 the 150 million also you would have to add the value of 7 any resources that aren't included in this 8 quantification, although at least on some measures they 9 are relatively insignificant financially. 10 Moving then on to the next slide. This is Dr Moy's 11 oil production forecasts, the last ones, with the blue 12 lines being the actual and the estimated actual in the 13 future, and the red dotted ones being the "but for", the 14 matter complained of forecasts. You can see there in 15 2012 a significant peak. This is with the bringing on 16 stream on the hypothetical Oyo B well that wasn't, of 17 course, actually drilled but exists in the "but for" 18 world, leading to the significant differential oil 19 production in that period, 2012 through to 2015. And 20 that is the heart of the value, if you like, or the 21 difference in the two lines leading to the value in the 22 counterclaim. 23 So unless there are any questions from the Tribunal 24 on the counterclaim, I shall move on to the final 25 adjustment statement.</p> <p style="text-align: center;">Page 141</p>	<p>1 Having received the final adjustment statement, 2 I have then been through it and looked at the items in 3 it and identified that on a net basis for the principal 4 reason that some of the items in there do not relate to 5 the relevant period, it would be appropriate, doing that 6 review, to take out \$1.6 million to come down to 7 a figure of 46.5 million. 8 The principal reason there is if -- one might 9 consider to be, although I don't think it's a term 10 that's used in the SPA or amended SPA, the "relevant 11 period", the way Mr Taylor and I have taken that is 12 goods and services supplied in the period 13 31 December 2011 to 28 June 2012. So clearly you could 14 have a payment during that period which relates to goods 15 and services that were delivered before that period, and 16 those haven't been included. You could have a payment 17 that occurs after 28 June 2012 that relates to goods and 18 services supplied in that period, and that would be 19 included. So it's about the date of the provision of 20 the goods and services, and so I removed 1.6 -- 21 principally -- million dollars -- principally for the 22 reason that although it wasn't recorded in NAE's 23 accounting systems until 2012, it actually related to 24 a period prior to 31 December 2011. There is one small 25 wrinkle on that at the end, which is the very last point</p> <p style="text-align: center;">Page 143</p>
<p>1 THE CHAIRMAN: Excuse me, so it is the first amount on the 2 left-hand side which reflects the drilling of the newer 3 wells? 4 MR GOOD: Oyo B in the "but for" is forecast to come on 5 stream in mid-July 2012. 6 THE CHAIRMAN: I can't quite read the dates. So it's the 7 first kind of -- 8 MR GOOD: That big peak is Oyo B coming online. 9 THE CHAIRMAN: Okay. Very good. 10 MR GOOD: So moving on to the final adjustment statement 11 and, again, as I mentioned, the computation they're are 12 looking at the invoices, the bank statements is agreed 13 with Mr Taylor. There are a few questions of principle, 14 however. 15 First of all, of course, there is the question -- 16 a legal and factual question about whether it is right 17 simply to take the amount on the final adjustment 18 statement and say that has not been disputed. Of 19 course, that's not something I can speak about, but that 20 as I understand it is NAE's case. 21 That is a number of \$48.1 million, which is the top 22 right number on this table. That is then split by 23 Mr Taylor into two columns, permitted and non-permitted, 24 and I will speak about those in a minute. So those are 25 the two columns to the left of the total.</p> <p style="text-align: center;">Page 142</p>	<p>1 I will deal with. 2 So that then leads to an updated amount of \$46.5 3 million. There is then how much of that is supported by 4 documentary evidence, and that is such as an invoice or 5 a NAE internal documentation such as a recharged debit 6 note from another Eni Group company, and that's 7 \$45.4 million. 8 Then moving down, the amount supported by payment 9 evidence, and here there's payment evidence for 10 \$37.7 million of that \$45.4 million. And then there are 11 a couple of sort of cuts of that. One can cut these 12 figures, it feels like, innumerable ways but there are 13 two particular cuts highlighted here. Of the amount 14 supported by third documentary evidence, the amount 15 which relates to goods and services received prior to 16 28 June 2012, 42.5 million, and then of that amount the 17 amount which is supported by payment evidence, 18 \$36.9 million. 19 So before I talk about the points of disagreement, 20 just very briefly to touch on the price adjustment 21 mechanism in the SPA and the process that was set out in 22 the SPA and amended SPA. There were 20 working days for 23 NAE to produce the final adjustment statement. And 24 then, as per the amended SPA, there was ten days, as 25 I understand it, for that to be disputed, followed</p> <p style="text-align: center;">Page 144</p>

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<p>1 potentially by a period of five working days for</p> <p>2 discussions. That is relevant when we come on, in</p> <p>3 particular to the question of payment evidence.</p> <p>4 So the first point of disagreement is whether items</p> <p>5 are permitted or non-permitted. I haven't formed my own</p> <p>6 personal view on that, and I am in not instructed to</p> <p>7 form a view. Just, however, to highlight as a matter of</p> <p>8 arithmetic what is in the non-permitted column and what</p> <p>9 makes up the difference, the vast majority of it is in</p> <p>10 relation to GSO rather than costs that were incurred in</p> <p>11 that first half of 2012. There's 4.8 million of GSO</p> <p>12 costs paid by NAE, which I understand NAE consider under</p> <p>13 the side letter should be recharged, and under the SPA</p> <p>14 to the respondents.</p> <p>15 There is also 4.6 million of taxes which were paid</p> <p>16 by NAE, although the principal amounts were paid by</p> <p>17 Allied or another company of the respondents, and</p> <p>18 they've all been paid -- principal amounts have been</p> <p>19 paid. Just to explain briefly how those taxes arise,</p> <p>20 you may have an invoice for 1 million and then there may</p> <p>21 be VAT on top of that, and also deducted from that is</p> <p>22 Nigerian withholding tax, and then a further local tax</p> <p>23 as well. So the amount you pay to the supplier may be</p> <p>24 900,000 out of that 1 million invoice, and then there</p> <p>25 may be a further amount which is due to the tax</p> <p style="text-align: center;">Page 145</p>	<p>1 a strict analysis, 1.1 is not supported by documentary</p> <p>2 evidence, and that's agreed with Mr Taylor.</p> <p>3 And then of the amount that's supported by</p> <p>4 documentary evidence, 2.7 million is in respect of --</p> <p>5 has documentation only from related parties. So 1.7 of</p> <p>6 that 2.7 is back to this operating activity indirect</p> <p>7 share and the rest are principally allocation of</p> <p>8 helicopter charges, so the helicopters operated for</p> <p>9 a number of Eni's Nigeria operations, they were invoiced</p> <p>10 by Bristow, the helicopter company, to a different Agip</p> <p>11 Eni company in Nigeria, who then invoiced the different</p> <p>12 ventures. There are some quite detailed invoices from</p> <p>13 that Eni Group company with the helicopters, the hours,</p> <p>14 pages and pages of it allocating it out on an hours</p> <p>15 basis, and in some cases we have the underlying Bristow</p> <p>16 invoices, and in some cases we don't, and so the amount</p> <p>17 where we don't have the underlying Bristow invoices are</p> <p>18 characterised here as having only documentation from</p> <p>19 related parties because we don't have the underlying</p> <p>20 sort of third party cost.</p> <p>21 And then on my final slide there is a question, of</p> <p>22 course, about whether or not payment evidence is</p> <p>23 required, and it's helpful, I think, to illustrate that</p> <p>24 by looking at the 7.7 million for which there is no</p> <p>25 payment evidence. 1.9 million relates to the provision</p> <p style="text-align: center;">Page 147</p>
<p>1 authorities which is paid separately.</p> <p>2 So just returning then to the topic of what's been</p> <p>3 classified by Mr Taylor as non-permitted, there is</p> <p>4 operating activity indirect share of 1.7 million, of</p> <p>5 which 1.1 million of this relates to the provision of</p> <p>6 production personnel, and then some smaller amounts.</p> <p>7 Moving on then to the level of documentary evidence</p> <p>8 required to support the costs. There's 1.1 million</p> <p>9 that's not supported by documentary evidence, as I've</p> <p>10 classified it. It is worth noting there that, you know,</p> <p>11 as with all of this there are shades of grey. So, for</p> <p>12 example, within that within 1.1 million of not supported</p> <p>13 by documentary evidence, there are some charges where</p> <p>14 the whole charge is split on two invoices, for example,</p> <p>15 40 per cent invoiced in local currency, 60 per cent</p> <p>16 invoiced in US dollars. We have the invoices for the</p> <p>17 40 per cent invoiced in local currency. We don't have</p> <p>18 the invoices for the 60 per cent. So the way I've</p> <p>19 classified that is that the 60 per cent items are</p> <p>20 considered to be not supported by documentary evidence,</p> <p>21 albeit that we do have the invoices for the other</p> <p>22 40 per cent that clearly state they are 40 per cent.</p> <p>23 So, again, one could say that some of that not supported</p> <p>24 is in fact supported by that or by other means, such as</p> <p>25 it's in a regular period of payments, et cetera. But on</p> <p style="text-align: center;">Page 146</p>	<p>1 of security vessels, and there is no evidence of that</p> <p>2 being paid. I note there was a budget, a preliminary</p> <p>3 budget, for 2012 with an amount of 5.4 million for</p> <p>4 security vessels, and then the half-year amount is</p> <p>5 1.9 million. But there is no direct evidence in terms</p> <p>6 of bank statements and payment orders of those amounts</p> <p>7 being paid.</p> <p>8 There is 2 million in respect of amounts due to</p> <p>9 Nigerian tax authorities, and this is where, if we go</p> <p>10 back to the \$1 million invoice with the 900 payable to</p> <p>11 the contractor, we have evidence of the payment of the</p> <p>12 900. What we don't have is the evidence of the payment</p> <p>13 to the tax authorities of the other 100,000 that makes</p> <p>14 up the 1 million. They are bundled together on</p> <p>15 a monthly -- the payments for Nigerian tax authorities</p> <p>16 are based on charges paid in a particular month, and the</p> <p>17 documentary link between those payments and the</p> <p>18 underlying invoice that gave rise to the liability is</p> <p>19 not particularly strong at times. So it is quite hard</p> <p>20 when you have a lump sum payment to Nigerian tax</p> <p>21 authorities sometimes to work out exactly which invoices</p> <p>22 that relates to.</p> <p>23 And then 2.8 of the 7.7 is back to this related</p> <p>24 parties point. Again, with the big amount being the</p> <p>25 indirect operating share.</p> <p style="text-align: center;">Page 148</p>

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<p>1 And then the final category is whether it is</p> <p>2 appropriate to include amounts for goods and services</p> <p>3 after 28 June. This is a small amount. It is</p> <p>4 0.3 million.</p> <p>5 The largest single amount is 200,000. This was the</p> <p>6 importation licence for the -- the temporary importation</p> <p>7 licence for the FPSO. They paid for a 12-month licence</p> <p>8 in -- well, they paid in April on an invoice from March.</p> <p>9 Clearly, an element of that importation licence relates</p> <p>10 to the period after the end of 28 June. I haven't seen</p> <p>11 any suggestion that Allied didn't continue to receive</p> <p>12 the benefit of having the importation licence, but on</p> <p>13 a strict reading part of that charge does relate to the</p> <p>14 period after 28 June, albeit that part of it relates to</p> <p>15 prior and was a 12-month licence, and so that's the</p> <p>16 final amount of difference in the final adjustment</p> <p>17 statement numbers.</p> <p>18 Thank you.</p> <p>19 THE CHAIRMAN: Thank you very much. Mr Wade.</p> <p>20 Cross-examination by MR WADE</p> <p>21 MR WADE: Thank you, Mr Good.</p> <p>22 Before I turn to a number of questions that</p> <p>23 I have -- I hope we will be able to finish them within</p> <p>24 the 30 minutes I indicated, so there aren't many,</p> <p>25 hopefully -- one question on your slides, would you like</p> <p style="text-align: center;">Page 149</p>	<p>1 relation to how that was calculated you say:</p> <p>2 "The way in which this figure in these tables has</p> <p>3 been computed though is quite different. It doesn't</p> <p>4 bear ..."</p> <p>5 Sorry, the second point to pull -- did I mark the</p> <p>6 right place? Goodness. Right:</p> <p>7 "The way in which this figure in these tables has</p> <p>8 been computed though is quite different and doesn't bear</p> <p>9 any relation to that figure."</p> <p>10 And there you are talking about the 570 figure:</p> <p>11 "This has been computed as the difference between</p> <p>12 based on looking at Dr Moy's column and estimated future</p> <p>13 oil production at the date in an actual scenario and</p> <p>14 a scenario 'but for' what is complained of and the</p> <p>15 values are there are 150 million as an estimated actual</p> <p>16 value and that date and approximately 180 million but</p> <p>17 for the matter that was complained of."</p> <p>18 Remember that?</p> <p>19 And I'm not sure I read it very well or perhaps it</p> <p>20 sounded better when you said it --</p> <p>21 A. I hope so.</p> <p>22 Q. My question is, you're describing the way in which these</p> <p>23 figures were calculated, and the way they were</p> <p>24 calculated, as I understand them, is the estimated</p> <p>25 future oil productions in the actual scenario compared</p> <p style="text-align: center;">Page 151</p>
<p>1 paper copies of the slides or are you happy with what</p> <p>2 you have on your screens?</p> <p>3 THE CHAIRMAN: As a general matter we're happy I think with</p> <p>4 what we have on the screens. By the way, just for your</p> <p>5 information, we have electronic copies of Dr Moy and</p> <p>6 Mr Filippi's presentations, but not of all of the</p> <p>7 experts, and we would appreciate having all of them.</p> <p>8 You have probably sent them ahead to us but I couldn't</p> <p>9 locate them. Sorry to interrupt.</p> <p>10 MR WADE: That's very useful. I will also say that since</p> <p>11 we're talking about documents, we will be looking at</p> <p>12 some of the schedules to your joint report and some</p> <p>13 others, and even on the A4 version they are quite small,</p> <p>14 so I have larger A3 reproductions of them here, which</p> <p>15 I think you will appreciate because you won't have them</p> <p>16 on screen, and I can't see them very well on A4.</p> <p>17 But before we go to all of that, just on page 2 of</p> <p>18 your presentation when you were talking about the loss</p> <p>19 of the sale to CPL entry. Do you remember that? That's</p> <p>20 on page 2, if you want to flick back so you can see it.</p> <p>21 Have you already?</p> <p>22 A. Yes.</p> <p>23 Q. You have. Fantastic. And when you described the way in</p> <p>24 which this loss, which I know you don't accept on the</p> <p>25 basis of Mr Filippi's forecasts it's not a loss, but in</p> <p style="text-align: center;">Page 150</p>	<p>1 with the estimated future production, both of them are</p> <p>2 reduced to net present value, and the larger is taken --</p> <p>3 the smaller is taken away from the larger and the</p> <p>4 resulting amount is either the damage, which we see</p> <p>5 there as 28 -- the loss 28,000,000.3 or in square</p> <p>6 brackets the amount in excess of the market value of the</p> <p>7 asset; is that correct? That is how I understood your</p> <p>8 explanation. And my question is -- then let me ask</p> <p>9 a question?</p> <p>10 A. Can I just clarify, you've moved to a concept there of</p> <p>11 market value. I'm not sure I discussed market value per</p> <p>12 se. One could say market value is what it was sold for,</p> <p>13 but the rest of the explanation absolutely I agree with,</p> <p>14 and it's looking into the future from that date, what's</p> <p>15 the future cash flows expressed as a lump sum at that</p> <p>16 date on a actual situation and a "but for" the matter</p> <p>17 complained of situation.</p> <p>18 Q. And my question in relation to that process is, do you</p> <p>19 disagree with that method of calculation? Is that the</p> <p>20 appropriate method to calculate this kind of loss that</p> <p>21 is complained of, in your view?</p> <p>22 A. Well, it's an arithmetical way of coming to this number.</p> <p>23 If you know that the asset was sold for -- asset plus a</p> <p>24 few resources, some resources was sold for -- was sold</p> <p>25 for 570 million, and then the value, if it is damaged or</p> <p style="text-align: center;">Page 152</p>

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<p>1 not, is below 200 million, then there is a question</p> <p>2 about whether you could have got more than the</p> <p>3 570 million you actually got if the asset hadn't have</p> <p>4 been, as is alleged, damaged.</p> <p>5 Q. So you accept, then -- I think you accept that the</p> <p>6 process of discounting future income in the actual</p> <p>7 forecasted scenario and the "but for" forecasted</p> <p>8 scenario and comparing them is an appropriate way of</p> <p>9 calculating damages in these circumstances, and you have</p> <p>10 a caveat to that, which you've just explained.</p> <p>11 A. I have a caveat that where you know what it was actually</p> <p>12 sold for that that needs to inform your question about</p> <p>13 whether there was actually a loss. The answer, sorry,</p> <p>14 to your question about whether there was actually</p> <p>15 a loss.</p> <p>16 Q. Okay. But in principle the process is something that</p> <p>17 you accept and you are used to you, you know and</p> <p>18 understand?</p> <p>19 A. I understand the process, yes.</p> <p>20 Q. And you think it's appropriate but subject to that</p> <p>21 caveat that you've mentioned?</p> <p>22 A. Subject to that caveat.</p> <p>23 Q. Turning back then to your reports, you looked at the</p> <p>24 reports in your bundles and this is not something I am</p> <p>25 going to take you to but I am mentioning for the</p> <p style="text-align: center;">Page 153</p>	<p>1 read Dr Lawal -- Dr Lawal.</p> <p>2 Q. Lawal. Did you read the cross-examination of Mr Casula?</p> <p>3 A. I think I was --</p> <p>4 Q. That was on Day 4?</p> <p>5 A. Yes, I think I have --</p> <p>6 Q. Okay, I have a copy --</p> <p>7 A. -- but no doubt you will take me to a particular point.</p> <p>8 Q. Let me give you the relevant documents, should I be able</p> <p>9 to find them at all. (Pause).</p> <p>10 For ease of reference, you probably have them</p> <p>11 electronically. (Handed)</p> <p>12 This is an excerpt, it is not the entire day but the</p> <p>13 entire day is available to all of us. Can you please</p> <p>14 turn to page 38, at lines 5 to 9, and have a quick look</p> <p>15 there. By way of context, I was asking Mr Casula</p> <p>16 questions about why NAE had failed to pay certain costs</p> <p>17 incurred by Allied on behalf of NAE, and his response to</p> <p>18 me was that:</p> <p>19 "NAE couldn't -- could not pay simply receiving</p> <p>20 an email, even a short letter saying we sent X million</p> <p>21 dollars. We want to see -- because when we have</p> <p>22 internal audits we have an auditor from third parties,</p> <p>23 we have to see all the proper supporting documents."</p> <p>24 And then skipping a few lines down at line 18 --</p> <p>25 lines 18 to 23:</p> <p style="text-align: center;">Page 155</p>
<p>1 Tribunal, should you ever wish to look for the</p> <p>2 appendices to Mr Good's report you won't find them in</p> <p>3 the bundles you looked at. They are in bundle F32, and</p> <p>4 I am not sure that we need to go there at all, but</p> <p>5 that's just a reference point for you.</p> <p>6 Can I ask you, please, to tell me whether you were</p> <p>7 assisted by anyone in preparing these reports?</p> <p>8 A. Yes, I was, as I set out I think in the first section of</p> <p>9 my report.</p> <p>10 Q. Who were you assisted by?</p> <p>11 A. I was assisted by two colleagues who are sitting over on</p> <p>12 my left, principally, Ms Stewart and Ms Scott.</p> <p>13 Q. Anyone else at all?</p> <p>14 A. Yes, there were others helped check. There were others</p> <p>15 who helped prepare some of the modelling work.</p> <p>16 Q. Everyone from KPMG, then?</p> <p>17 A. All the people who helped prepare this report, yes, from</p> <p>18 KPMG. I would say the people from Navigant helped with</p> <p>19 the joint statement because that was a collaborative</p> <p>20 process.</p> <p>21 Q. Thank you. Now, you also told us that -- although</p> <p>22 I think you were here on the first day or the second</p> <p>23 day -- but you read the transcripts for the day that you</p> <p>24 weren't here?</p> <p>25 A. I haven't read every day, every transcript, no. I did</p> <p style="text-align: center;">Page 154</p>	<p>1 "Again, we pay when we get -- or from the supplier</p> <p>2 all the proper supporting documents duly certified by</p> <p>3 the on board representative. Not if we receive</p> <p>4 an invoice without all the attachments, we cannot pay</p> <p>5 [Later, that might be]. Later on somebody can obviously</p> <p>6 argue that we follow the wrong procedure."</p> <p>7 My question broadly about that is, that sounds</p> <p>8 sensible to you, doesn't it?</p> <p>9 A. In the context of NAE paying costs to third-party</p> <p>10 suppliers, very broadly, yes.</p> <p>11 Q. And it is right also that the supporting documents that</p> <p>12 he was looking for included invoices and their</p> <p>13 attachments. That's an appropriate document to look</p> <p>14 for, isn't it?</p> <p>15 A. Yes, and invoices -- and appropriate documentation, yes.</p> <p>16 And it may need the attachments.</p> <p>17 Q. And proof of payment is also an appropriate -- it's is</p> <p>18 not mentioned in his comments but it's also</p> <p>19 an appropriate document -- supporting document to look</p> <p>20 for, isn't it?</p> <p>21 A. Well, it's -- it's a supporting document you could look</p> <p>22 for. The question is appropriate for what?</p> <p>23 Q. Appropriate for reclaiming a cost you've expended.</p> <p>24 A. In a financial statement audit, for example, you don't</p> <p>25 look for payments when you're looking at a list of</p> <p style="text-align: center;">Page 156</p>

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<p>1 expenditures. Is it a necessary condition? In all</p> <p>2 circumstances, I can't imagine that it would be, no.</p> <p>3 Q. And so there are circumstances in which you can make</p> <p>4 a claim for costs without proving that you've expended</p> <p>5 the cost. Is that what you're saying?</p> <p>6 A. Yes.</p> <p>7 Q. Can you give me examples of those circumstances?</p> <p>8 A. When I bill NAE for a hotel, I won't be proving that</p> <p>9 I've paid the hotel for NAE. I will be giving them the</p> <p>10 invoice from the hotel. That's a very superficial</p> <p>11 example, but there are plenty of circumstances where you</p> <p>12 provide the invoice but you don't necessarily provide</p> <p>13 the proof that you've paid that invoice.</p> <p>14 Q. NAE is clearly a very generous invoice reimbursing. Are</p> <p>15 there any other business-related circumstances you can</p> <p>16 think of, other than your personal hotel bills?</p> <p>17 A. Well, it doesn't have to be personal hotel bills. It</p> <p>18 can be any third party disbursement.</p> <p>19 Q. Okay. Any third parties. All right.</p> <p>20 Can you think of any other appropriate supporting</p> <p>21 documents which you would expect to see?</p> <p>22 A. Well -- and this is in the context that you don't --</p> <p>23 this is not a menu from which you have to have</p> <p>24 everything. It's your own view based on the documents</p> <p>25 available but, for example, you might look for the</p> <p style="text-align: center;">Page 157</p>	<p>1 possibly, yes.</p> <p>2 Q. What about accruals?</p> <p>3 A. Well, an accrual is not a type of document, it's</p> <p>4 a record of an expected future expenditure. And</p> <p>5 certainly for a final adjustment statement produced</p> <p>6 20 days after the period end, then I would be very</p> <p>7 surprised if there weren't accruals in there, because</p> <p>8 you wouldn't know at that point all the details of all</p> <p>9 the costs you might not have been -- you might well not</p> <p>10 have been invoiced for some of the costs that relate to</p> <p>11 that period yet.</p> <p>12 Q. And my final question about that, is there any hierarchy</p> <p>13 which you would expect to see? Is there a hierarchy</p> <p>14 in the sense that you would accept some types of proof</p> <p>15 of payment as establishing a claim and some which are of</p> <p>16 a lesser value in that regard?</p> <p>17 A. Well, I think the fact that I've broken out the third</p> <p>18 party documentation from an internal NAE</p> <p>19 documentation -- or Eni documentation, rather,</p> <p>20 acknowledges that an invoice from a related party from</p> <p>21 a group company, you have to look at it in a slightly</p> <p>22 different way. On the other hand, for indirect</p> <p>23 operating overhead, that is all there is going to be</p> <p>24 because by its very nature it's a parent company cost</p> <p>25 that's being charged down to you, and then also you</p> <p style="text-align: center;">Page 159</p>
<p>1 contract, so for a large long-term project you would</p> <p>2 look for a contract.</p> <p>3 LORD HOFFMANN: Mr Wade, are you asking him about his</p> <p>4 methodology and Mr Taylor's methodology for working out</p> <p>5 the sums that they have done or are you seeking to</p> <p>6 establish kind of custom of the trade in respect of the</p> <p>7 demand on you for the adjustments?</p> <p>8 MR WADE: I am asking for his opinion as an expert on what</p> <p>9 he might expect to see, because --</p> <p>10 LORD HOFFMANN: But wouldn't the contract specify what you</p> <p>11 were entitled to see?</p> <p>12 MR WADE: Well, if the contract leaves room for doubt his</p> <p>13 opinion might be relevant.</p> <p>14 LORD HOFFMANN: So you are seeking to establish a custom of</p> <p>15 the trade?</p> <p>16 MR WADE: I wouldn't say -- well, a custom of the</p> <p>17 dealings -- a custom of the trade, yes, I accept that.</p> <p>18 LORD HOFFMANN: Thank you.</p> <p>19 MR WADE: Would you care to answer -- the question was: are</p> <p>20 there any other types of supporting documents you would</p> <p>21 expect to see in a cost refund claim?</p> <p>22 A. As I say, it would --</p> <p>23 Q. You said contract. What about internal accounts, is</p> <p>24 that an acceptable supporting --</p> <p>25 A. It will depend on the nature of the charge but quite</p> <p style="text-align: center;">Page 158</p>	<p>1 might look at, for example, the helicopter invoices and</p> <p>2 think, well, these are very detailed, they are very</p> <p>3 specific, they relate to specific trips, specific times,</p> <p>4 you can see the allocation methodology is very clear on</p> <p>5 them, and we may be prepared to accept them. But as</p> <p>6 a general rule you might apply a different level of</p> <p>7 thinking when you looked at a related party invoice as</p> <p>8 compared third party invoice.</p> <p>9 Q. And the third party invoices would rank higher?</p> <p>10 A. Potentially, yes.</p> <p>11 Q. Okay.</p> <p>12 THE CHAIRMAN: Mr Wade, may I? Mr Good, I believe but</p> <p>13 correct me if I am wrong, there's a difference of</p> <p>14 opinion between you and Mr Taylor with respect to the</p> <p>15 charging of internal employees costs, am I correct in</p> <p>16 that?</p> <p>17 A. So this is the 1.7 million of indirect operating</p> <p>18 overhead, yes, that appears in pretty much all the</p> <p>19 categories in the presentation, both no third party</p> <p>20 documentation and then no payment and whether permitted</p> <p>21 or non-permitted.</p> <p>22 THE CHAIRMAN: So you take the view that certain costs of</p> <p>23 NAE employees were allocated probably to the Oyo GSO or</p> <p>24 whatever but, therefore, are properly part of the</p> <p>25 positive adjustment; correct?</p> <p style="text-align: center;">Page 160</p>

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<p>1 A. Essentially, partially, sorry. Under annex B, 2 Schedule 2 of the PSC, which effectively sets out the 3 rules between the parties, it is very much envisaged 4 that those types of costs can be charged to the joint 5 account. Whether they are permitted or not permitted 6 under the terms of the amended SPA is not really 7 something I can get into. And then just to note that 8 1.1 million of that is, if you like, NAE personnel, it's 9 operating costs of the FPSO, it relates specifically to 10 the FPSO as opposed to overhead.</p> <p>11 THE CHAIRMAN: But the contractual basis is the annex to the 12 PSC for you for charging those costs, is that --</p> <p>13 A. While acknowledging that the amended SPA will have 14 something to say about whether in these circumstances it 15 is appropriate to include them in the final adjustment 16 statement.</p> <p>17 THE CHAIRMAN: Did either you or Mr Taylor look at the past 18 practices with respect to charging those costs?</p> <p>19 A. Yes, I tried to. The Schedule B ones are very high 20 level unfortunately. So they don't give a detailed 21 breakdown of the costs to enough level to enable me to 22 work out whether they were in there. But they were 23 certainly envisaged in the PSC.</p> <p>24 THE CHAIRMAN: Thank you.</p> <p>25 MR WADE: Which is a convenient moment to ask you to open</p> <p style="text-align: center;">Page 161</p>	<p>1 but it will just be a little bit more boring if we do --</p> <p>2 but you explain and set out the operation and effect of</p> <p>3 Articles 8, paragraph 4 of Article 4 of annex B, which</p> <p>4 you just mentioned in your response to the chairman's</p> <p>5 question.</p> <p>6 You deal with Article 8.1(a) and (c) and -- sorry,</p> <p>7 8(1)(a)(c) an Article 8.3 and Article 8.1(b) and</p> <p>8 Article 8.1(d), and I think 8.1(e) as well.</p> <p>9 My question to you really is whether, having looked</p> <p>10 at all of those Articles and paragraphs of the annex and</p> <p>11 explaining them, did you have any difficulty in</p> <p>12 reviewing those Articles and understanding their effect?</p> <p>13 A. These Articles set out the cost -- cost splitting, if 14 you like, and the cost recovery, the way in which the 15 gross revenues are to be calculated and then split and 16 allocated between the co-venturers for want of a better 17 word. It is a complex mechanism, but you can work your 18 way through it.</p> <p>19 Q. And you worked your way through it without any help from</p> <p>20 any lawyers, didn't you?</p> <p>21 A. Well, I had Mr Bamford and Mr Taylor's report to help me 22 understand it.</p> <p>23 Q. But you checked the PSC yourself, I assume?</p> <p>24 A. Yes.</p> <p>25 Q. And you understood that what Mr Taylor was saying was</p> <p style="text-align: center;">Page 163</p>
<p>1 your report, which is at D2, tab 5. The chairman just</p> <p>2 asked you about certain aspects of the PSC, or at least</p> <p>3 you answered with regards to certain aspects of the PSC,</p> <p>4 and can you go to paragraph 2.3.1 or section 2.3, which</p> <p>5 is at page 256 of the bundle. I am just going to skip</p> <p>6 through some of the paragraphs here quite quickly but</p> <p>7 stop me if you'd like to.</p> <p>8 At 2.3 -- in that section generally you set out your</p> <p>9 understanding of the operation of the PSC. That's what</p> <p>10 you say there.</p> <p>11 A. Yes.</p> <p>12 Q. And that's correct, isn't it?</p> <p>13 A. Yes.</p> <p>14 Q. And 2.3.2 you provide an overview of Articles 6,</p> <p>15 recital 1, Article 7.4A(i) and Article 7.4A(ii) of the</p> <p>16 PSC; is that correct?</p> <p>17 A. Certainly the Articles referenced in the footnotes, yes.</p> <p>18 Q. Are those the Articles?</p> <p>19 A. I don't have an encyclopedic knowledge of the PSC to 20 know whether other aspects of the PSC are also reflected 21 in this paragraph, but --</p> <p>22 Q. All right. But those are the ones you refer to?</p> <p>23 A. Yes.</p> <p>24 Q. And in the following paragraphs, 2.2.3 down to 2.3.6 you</p> <p>25 explain -- and we can go through each one if you want</p> <p style="text-align: center;">Page 162</p>	<p>1 correct, didn't you?</p> <p>2 A. The way in which he'd mathematically applied the PSC was 3 correct in his financial model, yes.</p> <p>4 Q. And you weren't helped by any lawyers in doing this</p> <p>5 process, were you?</p> <p>6 A. No.</p> <p>7 Q. So whilst we're in your statement, can we go, please,</p> <p>8 now to paragraph 5.1.9, which is on page 298, all the</p> <p>9 way at the end there. And in that paragraph you note</p> <p>10 that after you received Mr Taylor's report and you</p> <p>11 reviewed it -- and I think NAE -- you say there that NAE</p> <p>12 further reviewed the items within the positive</p> <p>13 adjustment and they provided you with additional --</p> <p>14 well, they it provided, it says here, but I am assuming</p> <p>15 they provided them to you first -- they provided</p> <p>16 additional supporting information in respect of its</p> <p>17 updated schedule. The updated schedule I think is the</p> <p>18 final adjustment statement; is that correct?</p> <p>19 A. Yes, that's additional to the material that was attached 20 to Mr Taylor's report.</p> <p>21 Q. Okay. And can you turn briefly to paragraph 5.2.10,</p> <p>22 which is on page 302. Sorry, page 300. There again you</p> <p>23 have a reference to NAE collating further evidence of</p> <p>24 amounts paid and providing them to you as well,</p> <p>25 I resume. You don't say it there, but I presume it was</p> <p style="text-align: center;">Page 164</p>

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<p>1 provided to you, is that correct?</p> <p>2 A. Yes, this is material trial that wasn't attached to</p> <p>3 Mr Taylor's report. It was then provided to me by</p> <p>4 NAE --</p> <p>5 Q. And then now to page 302 to paragraph 5.2.17, and again</p> <p>6 there is a reference there to:</p> <p>7 "Additional information now being provided to me by</p> <p>8 NAE."</p> <p>9 And the examples of the additional information you</p> <p>10 were given there were invoices reflecting amounts which</p> <p>11 were initially included within accruals.</p> <p>12 A. Yes.</p> <p>13 Q. Were there other invoices that were given to you at that</p> <p>14 time?</p> <p>15 A. I can't be definitive. My recollection is that that was</p> <p>16 the principal reason in respect of invoices.</p> <p>17 Q. Okay. Can I ask you now to turn to Schedule 7,</p> <p>18 appendix 7 of your joint report with Mr Taylor, and this</p> <p>19 is one of those documents which I think you might</p> <p>20 benefit from a larger copy, that's assuming, of course,</p> <p>21 that I have it. I can't read this in A4, so if you're</p> <p>22 stuck with an A3 you are even worse off. (Handed).</p> <p>23 Now, as I should say straightaway that although this</p> <p>24 was provided as an attachment to your joint report, this</p> <p>25 is not an agreed attachment. This is a schedule of</p> <p style="text-align: center;">Page 165</p>	<p>1 the first and only evidence Mr Taylor had been provided</p> <p>2 with, as he says, and I'm not disputing or doubting that</p> <p>3 for one moment but just simply the source of that</p> <p>4 comment for the first time with his report.</p> <p>5 Q. So you don't know when these documents were provided to</p> <p>6 Mr Taylor for the first time is what you saying</p> <p>7 effectively?</p> <p>8 A. He says it with his report, and I'm absolutely saying --</p> <p>9 Q. Actually he says it was with your report.</p> <p>10 A. Sorry, with my report, and I am absolutely -- if that's</p> <p>11 what he says, then I'm very happy to accept that.</p> <p>12 Q. Okay. And so equally you haven't looked at the</p> <p>13 computation, so you don't know whether the computation</p> <p>14 is right or wrong?</p> <p>15 A. Well, in terms of --</p> <p>16 Q. The 21 million --</p> <p>17 A. -- whether it adds up.</p> <p>18 Q. -- at the bottom there?</p> <p>19 A. I haven't add it up, no.</p> <p>20 Q. You haven't added it, okay. So when it's stated as not</p> <p>21 agreed by you, it's not that you disagree with anything</p> <p>22 you just haven't checked anything?</p> <p>23 A. Correct.</p> <p>24 Q. Okay. Then, that helps us with that one. Turning to</p> <p>25 appendix 3 of your joint statement --</p> <p style="text-align: center;">Page 167</p>
<p>1 costs -- well, it's an appendix that you don't agree to.</p> <p>2 A. I'm not saying I don't agree, it's just something</p> <p>3 that --</p> <p>4 Q. That's what you said.</p> <p>5 A. -- that is not relevant to my work and that I've not</p> <p>6 looked at.</p> <p>7 Q. Okay. Well, in this schedule Mr Taylor set out the</p> <p>8 details of 21.3 million -- an explanation of the</p> <p>9 21.3 million related to the permitted items that were</p> <p>10 incurred in the relevant date, and which are supported</p> <p>11 by payment evidence provided by -- to Mr Taylor for the</p> <p>12 first time with the publication of Mr Good's report.</p> <p>13 Now, I was going to ask you, and I believe you've</p> <p>14 already answered that question, what part of this you</p> <p>15 didn't agree with? Did you not agree or do you not</p> <p>16 agree that these documents were provided -- the</p> <p>17 documents listed here were provided for the first time</p> <p>18 with your report?</p> <p>19 A. I simply haven't been through and ticked off as</p> <p>20 an exercise whether the documents were not attached to</p> <p>21 Mr Taylor -- firstly, whether the documents were or</p> <p>22 weren't attached to Mr Taylor's report and, therefore,</p> <p>23 fit the category of the title and, secondly, whether</p> <p>24 there was other payment evidence already attached to my</p> <p>25 report which this merely augmented or whether this was</p> <p style="text-align: center;">Page 166</p>	<p>1 PROFESSOR LEW: Are we done with this?</p> <p>2 MR WADE: We have. I am sure you will want to frame it and</p> <p>3 keep it forever but we have for now. Again I have</p> <p>4 a larger -- it is not exactly -- I am told it's not</p> <p>5 an exact copy, it's reformatted, but all of the data is</p> <p>6 exactly the same within -- apparently to make it larger,</p> <p>7 if you just print it out on A3 you get the same size of</p> <p>8 text.</p> <p>9 Can I ask you to look, please, at the left-hand box</p> <p>10 in that under the heading -- it is four from the left --</p> <p>11 "Amounts supported by documentation internal or</p> <p>12 external".</p> <p>13 A. Yes.</p> <p>14 Q. Am I correct in understanding or am I just -- never mind</p> <p>15 my understanding, am I correct that you were able to</p> <p>16 agree the figure of -- I am going to go down the figures</p> <p>17 but ultimately the figure of 45,421, were you able to</p> <p>18 agree these figures as a result of the additional</p> <p>19 documents that were provided together with your report?</p> <p>20 A. The number would have been different if I'd only relied</p> <p>21 on the information attached to Mr Taylor's report.</p> <p>22 Could I only agree -- some of the numbers, I think</p> <p>23 I would have been able to agree or they would slightly</p> <p>24 different and are augmented or changed by the material</p> <p>25 attached to my first report.</p> <p style="text-align: center;">Page 168</p>

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<p>1 Q. Indeed, you say augmented. Some of the figures actually</p> <p>2 become larger as a result of the documents and some</p> <p>3 reduce --</p> <p>4 A. Yes.</p> <p>5 Q. -- as a result of the documents provided by you for the</p> <p>6 first time.</p> <p>7 A. By NAE to me, yes.</p> <p>8 Q. By NAE to you and then by you to Mr Taylor --</p> <p>9 A. Yes.</p> <p>10 Q. -- the first time. So when you compared the documents</p> <p>11 to the figures claimed, you were then able, on the basis</p> <p>12 of those documents, to agree the figures on that column</p> <p>13 and, indeed, in the next column down. So in the</p> <p>14 "Amounts supported by payment evidence" you were able to</p> <p>15 agree that as a result of the documents provided with</p> <p>16 your report or --</p> <p>17 A. Again, the number would have been different, but for the</p> <p>18 material that is attached to my report that wasn't</p> <p>19 attached to Mr Taylor's report, yes, and --</p> <p>20 Q. Now, do you still have your statement open? Your</p> <p>21 statement, is it nearby?</p> <p>22 A. Yes.</p> <p>23 Q. Or the joint -- anyway, finally with regard to the final</p> <p>24 adjustment statement, but touching on the admitted/not</p> <p>25 admitted issue, at paragraph 5.2.4 of your report you</p> <p style="text-align: center;">Page 169</p>	<p>1 But in summary, there seems to be a legal and factual</p> <p>2 dispute about the GSO costs, which make up the bulk of</p> <p>3 the non-permitted items, and then there is this question</p> <p>4 about the wording in the amended SPA about potentially</p> <p>5 agreeing or including other costs as may be agreed, and</p> <p>6 those to me give sufficient -- well, they are uncertain.</p> <p>7 I would -- I don't think as an accountant I could easily</p> <p>8 come to a view at all.</p> <p>9 Q. Let's break that down into two, please, and I remind you</p> <p>10 that you told me a short while ago that you were able to</p> <p>11 construe the very complex provisions of the PSC with</p> <p>12 regard to the allocation of costs, and so even though</p> <p>13 you're an accountant this is something you have</p> <p>14 testified you are able to do. But looking just --</p> <p>15 LORD HOFFMANN: I am not sure that's a fair way of putting</p> <p>16 it, because he didn't suggest that there was any</p> <p>17 difficulties of construction about the allocation of</p> <p>18 costs, he just said it was a complicated exercise, and</p> <p>19 he went through it. What you're now asking him about is</p> <p>20 really the construction of the contract. What does it</p> <p>21 mean?</p> <p>22 MR WADE: And I am asking whether he feels --</p> <p>23 LORD HOFFMANN: Well, I can tell you he can't tell us what</p> <p>24 it means, we decide what it means.</p> <p>25 MR WADE: I accept your admonition with respect, and I will</p> <p style="text-align: center;">Page 171</p>
<p>1 say that you don't -- and you said as much in your</p> <p>2 introduction -- you didn't give an opinion in relation</p> <p>3 to Mr Taylor's categorisation of the items as permitted</p> <p>4 or not permitted. And although you didn't say so</p> <p>5 expressly, is it fair to say that you didn't give</p> <p>6 an opinion because you were instructed not to?</p> <p>7 A. I was -- I've been asked from the outset -- told from</p> <p>8 the outset that I don't need to consider that, and asked</p> <p>9 not to consider it. Obviously I've read the amended</p> <p>10 SPA, and clearly based on the cross-examination of some</p> <p>11 of the witnesses there's been some questions in</p> <p>12 particular about the GSO costs and whether they should</p> <p>13 be included and also the wording of the amended SPA and</p> <p>14 whether that covers or doesn't cover items potentially</p> <p>15 that aren't in that list of 12.</p> <p>16 Q. But within about eight words of the beginning of your</p> <p>17 answer you said you were told not to consider that</p> <p>18 categorisation --</p> <p>19 A. Yes.</p> <p>20 Q. -- and that's the reason you didn't; is that correct?</p> <p>21 A. Yes.</p> <p>22 Q. Good. And then my next question about this is whether</p> <p>23 you consider yourself competent to?</p> <p>24 A. I think I possibly went on to answer that with the</p> <p>25 first -- the second part of -- to your earlier question.</p> <p style="text-align: center;">Page 170</p>	<p>1 just ask him then about the categories of costs, which</p> <p>2 seem to be a simple accounting exercise, in my view.</p> <p>3 LORD HOFFMANN: Yes.</p> <p>4 MR WADE: Not a question of construing individual words.</p> <p>5 LORD HOFFMANN: Right.</p> <p>6 MR WADE: So from the point of view of an accountant, who is</p> <p>7 not a lawyer, even though it can and has read complex</p> <p>8 legal documents, would it be within your competence to,</p> <p>9 if you were instructed, look at the categories of the</p> <p>10 final adjustment statement, so the individual claims,</p> <p>11 things such as security vessels, maintenance repairs,</p> <p>12 and form a view as to whether they were or were not</p> <p>13 included in the permitted -- or to be included in the</p> <p>14 costs to be claimed under the final adjustment</p> <p>15 statement?</p> <p>16 A. So we have to, I think, set aside the GSO costs because</p> <p>17 that --</p> <p>18 Q. That's what I was doing.</p> <p>19 A. -- would be a construction question. There is then the</p> <p>20 question about the wording about other costs as agreed,</p> <p>21 and I think you're telling me just to set that aside for</p> <p>22 the purposes of this --</p> <p>23 Q. Yes, I am just looking at the list.</p> <p>24 A. -- exercise. So I set that aside. So as a hypothetical</p> <p>25 question having set aside that part of the amended SPA,</p> <p style="text-align: center;">Page 172</p>

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<p>1 can I then attempt to characterise the other -- I think 2 it is 1.8/\$1.9 million -- 3 Q. I wasn't asking about money, I was asking about the 4 categories. 5 A. Yes. So I may refer to my slide if that's okay. 6 I expect my computer has gone to sleep. I don't know if 7 you have a hard copy. 8 Q. If you look at the big page I -- 9 A. Would it be possible to have a hard copy of my slides? 10 Q. Of course. (Handed). 11 A. So I think then the question would be: is it possible to 12 allocate operating activity in direct share, the IT 13 costs, the telecom services and the bank commission? 14 Q. Which page are you looking at? 15 A. I'm looking at slide 5. 16 Q. Slide 5, yes. Take those as an example. 17 A. Well, I think they are the items pretty much. IT costs 18 and telecom services, again, sorry, I would need the 19 wording of the amended SPA in front of me to do the 20 allocation exercise. 21 Q. That's at bundle A. (Pause). 22 MR NESBITT: Sorry, Mr Chairman I don't want to interrupt 23 Mr Wade's, flow but I'm entirely sure what the point of 24 this exercise is because it is a matter on which Mr Good 25 said he hadn't been instructed, and it's a matter of</p> <p style="text-align: center;">Page 173</p>	<p>1 Q. Are you answering "no" to my question then, about 2 your -- 3 A. I don't think I can, no. 4 Q. All right. Moving on then to the question of the sale 5 to CPL, returning to that question. You already helped 6 us with that a little bit. 7 In the joint report at paragraph 3.2, which is at 8 E3, tab 6, 315, we might not all need to go there, but 9 I saw Mr Good was going there so I slowed down. As you 10 said in your presentation, you agree with the 11 calculation performed by Mr Taylor; correct? 12 A. Yes. 13 Q. And applying Mr Filippi's forecasts you reach 14 a different result of your own; is that correct? 15 A. Well, not on my own but, yes, we both reach a different 16 result. 17 Q. Okay. Sorry, a different result was reached and you 18 agree with it -- 19 A. Yes. 20 Q. -- applying Mr Filippi's forecasts. And then on the 21 following page, at point 3.3, you set out the reasons in 22 summary for your disagreeing that Allied suffered a loss 23 of \$28.3 million. And I think it's fair to say that you 24 set them the in summary there, not in full, because you 25 do in report set them out in greater detail. But tell</p> <p style="text-align: center;">Page 175</p>
<p>1 construction of the contract for the Tribunal, if indeed 2 Mr Wade is trying to get him to perform the exercise he 3 appears to be getting him to perform. 4 MR WADE: So let me clarify what I am trying to do. The 5 question is whether he was competent, in his opinion, to 6 do so, I'm not asking him to do so. So that is the 7 extent -- 8 MR NESBITT: Well, that's a yes or no answer, really. 9 MR WADE: Yes -- 10 MR NESBITT: I think he said no. 11 MR WADE: But Mr Good wants to go to these documents and 12 I am going to prevent him. 13 THE CHAIRMAN: I think the expert asked to look at his 14 slides. The expert is now looking at the slides and 15 will answer the question, and we'll see where that leads 16 us. 17 MR WADE: You also wanted to look at bundle A/2 -- A, tab 2, 18 page 66. 19 A. So I am on page 66, the very bottom line. I think any 20 attempt to allocate these costs, to give a relatively 21 short answer, will depend on the construction of the 22 provision and operation of maintenance services and 23 whether these costs fell within that category or indeed 24 any of the other categories, but in particular the 25 provision and operation of maintenance services.</p> <p style="text-align: center;">Page 174</p>	<p>1 me if I am fairly summarising your view. The reasons 2 for your disagreement is that the 2014 sale price to 3 CPL, around \$576 million for the NAE beneficial interest 4 was higher than the modelled "but for" market price of 5 215 million for that interest? 6 A. Well, the modelled amount has gone down, firstly, as 7 a result of Dr Moy's changes to about 180 but, secondly, 8 I am not sure that's the right comparison because the 9 question is what the -- the one-fifth -- I think the 10 right comparison is to the 150, which is the actual. So 11 the comparison -- sorry, I am confusing everybody, 12 including myself, I think. The comparison is the \$76 or 13 \$74, according to Dr Lawal, of sale price versus what it 14 was actually worth, 180, in the "but for". 15 Q. Yes. 16 A. Yes. 17 Q. So I think from your comments, and perhaps this is the 18 source of the confusion, you agree that the price of the 19 sale to CPL of 576 million is not properly comparable 20 with the "but for" price that was calculated by 21 Mr Taylor, because Mr Taylor is only calculating the 22 "but for" value of the income stream from the Oyo 23 central field? 24 A. Yes. And, as I indicated in my presentation, the 25 overall NAE beneficial interest will include the rights</p> <p style="text-align: center;">Page 176</p>

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<p>1 to resources not part of Oyo central. As I set out in</p> <p>2 the joint statement, certainly the (inaudible) valuation</p> <p>3 values that at about 10 or \$11 million, although there</p> <p>4 are, as Mr Taylor references, some other valuations that</p> <p>5 put different numbers on that.</p> <p>6 Q. And with regard to the other asset, whatever the value</p> <p>7 ascribed to them, would you agree in principle that if</p> <p>8 you sell a bundle of assets in one sale and the value of</p> <p>9 one of them increases, then the value of the total</p> <p>10 should also increase?</p> <p>11 A. Well, it depends on whether you would have got more than</p> <p>12 576 for the package depending on the state of the</p> <p>13 reservoir, and I don't think I can say that the</p> <p>14 difference is so huge you could easily say that it will</p> <p>15 make no difference at all. But you can't know. You</p> <p>16 can't know.</p> <p>17 Q. Right. The other point you appear to make is that --</p> <p>18 and I am not sure I follow the basis for this, perhaps</p> <p>19 you could help me -- is that comparing the price which</p> <p>20 Allied paid for the assets in 2011 of 250 million, and</p> <p>21 the price it then sold it for two years later, there</p> <p>22 just can't be a loss seems to be what you're saying.</p> <p>23 I'm not sure I understand the reasoning for that</p> <p>24 assertion. You compare the two prices, you say 250 in</p> <p>25 2011, 576 in 2014, there can't have been any loss.</p> <p style="text-align: center;">Page 177</p>	<p>1 market -- fundamentally you're taught as the 101 of</p> <p>2 market valuation it is worth what someone is prepared to</p> <p>3 pay for it.</p> <p>4 Q. But you don't disagree with the method that Mr Taylor</p> <p>5 adopted in there --</p> <p>6 A. Well, subject to the caveat, which comes straight back</p> <p>7 to the same point.</p> <p>8 Q. Finally, in relation to this, in point 3.0.3 --</p> <p>9 I'll struggle to find the page, probably -- at page 318</p> <p>10 you make an odd little comment there, I thought. You</p> <p>11 say, talking about this difference --</p> <p>12 PROFESSOR LEW: Where are you?</p> <p>13 MR WADE: At page 318 at the very bottom of what is</p> <p>14 point 3.3. You make a kind of concluding sweeping</p> <p>15 comment where you say:</p> <p>16 "In any event ..."</p> <p>17 A. Sorry, I'm not --</p> <p>18 Q. Page 318 in the joint report.</p> <p>19 A. 318?</p> <p>20 Q. Yes. Are you looking at tab 6? Tab 6, sorry. It is</p> <p>21 E3 --</p> <p>22 A. Ah, sorry, yes.</p> <p>23 Q. -- tab 6, page 318.</p> <p>24 A. I've got it.</p> <p>25 Q. And it's just an odd comment there from you, I thought.</p> <p style="text-align: center;">Page 179</p>
<p>1 A. I think the purpose of looking at the 250 was to say,</p> <p>2 well, that was not just for the valuation of the Oyo</p> <p>3 reservoir, the Oyo central, which is part of the</p> <p>4 calculation that Mr Taylor has done and that I've looked</p> <p>5 at that comes to on an undamaged basis, 180, but</p> <p>6 includes the whole package, including the rights to the</p> <p>7 resources.</p> <p>8 So that's looking at then the difference, if you</p> <p>9 like, that could possibly be attributed to those</p> <p>10 resources there and saying "Okay, so that doesn't bridge</p> <p>11 the gap between the 576 actual sale price", and what</p> <p>12 Mr Taylor says and I agree computationally it was worth</p> <p>13 even in an undamaged state, so if undamaged it is only</p> <p>14 worth 180 and you've sold it for 576, I still struggle</p> <p>15 to see how you could sell it for more.</p> <p>16 Q. That's an impressionistic point from you, it's not based</p> <p>17 on any recognised economic theory or accounting</p> <p>18 principles, it's just your impression; is that right?</p> <p>19 Is that a fair point to make in criticism of your view?</p> <p>20 A. Only that the 576 is a very hard number. It's the</p> <p>21 hardest number that's available because it's the amount</p> <p>22 that was agreed for a transaction and reported in, you</p> <p>23 know, audited SEC filings so -- or the components of it</p> <p>24 were, sorry, rather than the actual number. So, no,</p> <p>25 I don't think it is entirely impressionistic because the</p> <p style="text-align: center;">Page 178</p>	<p>1 You mentioned that of the 250 only 100 million has been</p> <p>2 paid. And is that relevant to your calculations?</p> <p>3 A. In this context, no. Although, as I understand it, it</p> <p>4 is factually accurate.</p> <p>5 Q. Did somebody ask you to put it into your report?</p> <p>6 A. No.</p> <p>7 Q. No. You just thought "I shall add that in there because</p> <p>8 it's not relevant to my calculations", but you had</p> <p>9 a strong urge to put in the there?</p> <p>10 A. Well, the 576 is the consideration that has passed as</p> <p>11 a result of the sale, and the 100 million is what has</p> <p>12 passed as a result of the acquisition of the same asset</p> <p>13 two years before.</p> <p>14 Q. How does that affect the calculations you've conducted?</p> <p>15 A. Well, it's illustrating the gap between what has been</p> <p>16 paid for it and what it has been sold for.</p> <p>17 Q. It is irrelevant to your calculations, isn't it? And</p> <p>18 you've put it there because you've taken sides on this</p> <p>19 point, haven't you?</p> <p>20 A. I've only -- I've not taken sides on this point.</p> <p>21 Q. Well --</p> <p>22 A. I am simply pointing out factually how much has been</p> <p>23 paid for the asset and how much has been sold.</p> <p>24 Q. But you point out a factual point that's just not</p> <p>25 relevant, is it?</p> <p style="text-align: center;">Page 180</p>

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<p>1 A. If you're looking at the value of the asset, what has 2 been paid for it and what it has been sold for is 3 relevant. 4 MR WADE: I have no further questions, thank you. 5 THE CHAIRMAN: Thank you very much. 6 MR NESBITT: No redirect. 7 THE CHAIRMAN: Thank you very much, Mr Good. You are 8 excused as an expert. 9 Now, gentlemen, is it time for a break? 10 How are we doing on time? 11 MR NESBITT: Well, that was rather more than 30 minutes, but 12 there we are. It is almost 3.30 pm so we have a couple 13 of hours still -- 14 THE CHAIRMAN: 3.45 then we will come back. 15 MR NESBITT: Sorry, sir, I was going to suggest would now be 16 good moment to address you on what I forgot to do after 17 lunch, which is in relation to the mail log document or 18 do you want to leave that to the end? 19 THE CHAIRMAN: Let's leave that to the end. 20 MR NESBITT: Okay. 21 THE CHAIRMAN: The Tribunal might have a proposal for the 22 parties to address that, but we'll listen to both -- 23 MR NESBITT: You wanted to know factually what it was and 24 where it came from, and I can now tell you that, but we 25 can wait until later.</p> <p style="text-align: center;">Page 181</p>	<p>1 Q. And can you please turn to page 354 in the bundle. 2 A. Yes. 3 Q. Do you see there your signature below the "statement of 4 truth"? 5 A. I do, yes. 6 Q. Now, I understand you've identified a number of 7 typographical errors in this statement, which you would 8 like to correct; is that true? 9 A. Yes, there are a few things I wanted to correct. 10 Q. And do you remember where they are? Would you like me 11 to direct you to them? 12 A. I think I can remember where they are. There are three 13 of them. So the first one is on page 293 of the bundle. 14 Q. Wait for everyone to be there. (Pause). 15 A. The figure on that page, figure 2, unfortunately that is 16 the ownership structure as of 22 November 2013 as 17 uplicated in my report in two pages' time. I copied 18 the wrong figure in. The correct figure can be found -- 19 the correct diagram can be found at my exhibit 17, 20 MPJT17, page 8. 21 THE CHAIRMAN: What paragraph of your statement or expert 22 report are you on? 23 A. It is paragraph 3.2.5. 24 THE CHAIRMAN: Yes. 25 A. But it is over the page on page 17 of my report, there</p> <p style="text-align: center;">Page 183</p>
<p>1 THE CHAIRMAN: We'll wait for later for that information. 2 MR NESBITT: All will be revealed. I hope it is worth 3 waiting for. 4 MR WADE: For the first time all will be revealed. 5 (3.28 pm) 6 (A short break) 7 (3.45 pm) 8 MR MARK TAYLOR (called) 9 THE CHAIRMAN: Good afternoon, Mr Taylor. Welcome to the 10 proceedings. Mr Taylor, you have provided an expert 11 report, and you've signed a joint report. 12 A. That's right, yes. 13 THE CHAIRMAN: And you understand that your duty is to 14 express your best professional opinion to the Tribunal? 15 A. I do understand that, yes. 16 THE CHAIRMAN: Very good. Mr Wade. 17 Examination-in-chief by MR WADE 18 MR WADE: Mr Taylor, do you have near you bundle E2? 19 A. I do. 20 Q. And I think it's open at tab 5. Can you confirm that it 21 is? 22 A. It is. 23 Q. And is that a copy of your expert report dated 24 24 February 2016? 25 A. It is, yes.</p> <p style="text-align: center;">Page 182</p>	<p>1 is figure 2 "Ownership of the OMLs 22 July 2005". The 2 diagram beneath that heading is actually for the later 3 period, and the correct picture is as in my exhibit 4 MPJT17 on page 8. 5 MR WADE: You won't know the bundle reference for it, so 6 I will inform the Tribunal, if I may. The bundle 7 reference is F19, tab 17, page 146. There is another 8 correction, I believe. 9 A. There is. On page 29 of my report there is a table in 10 the middle of the page, table 4, a number of figures in 11 there. 12 The second column is headed "2011". The second row 13 of that column is "Royalty", and you can see all the 14 other numbers in that royalty row are negative numbers, 15 they are in brackets. Those brackets should be around 16 the 1830 as well. So that 1830 should be a negative 17 number. And then the revenue on the bottom line, 18 therefore, needs to be updated as well, so it is 50.5, 19 I think it is. 20 PROFESSOR LEW: Sorry, could you say that -- 21 A. So the revenue changes to -- 22 PROFESSOR LEW: 9010. 23 A. 9010 to 53.5. But those numbers don't flow through 24 anywhere into the report. 25 The last correction I think I am going to have to</p> <p style="text-align: center;">Page 184</p>

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<p>1 ask Mr Wade to point me to it --</p> <p>2 MR WADE: Are you thinking of paragraph 4.3.4 of your report</p> <p>3 on page 302?</p> <p>4 A. Yes, I am, thank you. On paragraph 4.3.4 of my report</p> <p>5 on page 26, which is page 302 of the bundle, in the</p> <p>6 third line of that paragraph it starts "And CPL". It</p> <p>7 should read "And Allied".</p> <p>8 MR WADE: Thank you.</p> <p>9 A. That's all my corrections.</p> <p>10 Q. Now, I see you also have what I think is bundle E3 in</p> <p>11 front of you. Could you open that at tab 6.</p> <p>12 A. Yes, I have that open at tab 6.</p> <p>13 Q. Does that contain a copy of your joint report with</p> <p>14 Mr Good as amended on 15 June 2016?</p> <p>15 A. Yes, it does.</p> <p>16 Q. And if you turn over the page to page 308, is that your</p> <p>17 signature next to the signature of Mr Good?</p> <p>18 A. Yes, it is.</p> <p>19 Q. And apart from the corrections you've told us about, is</p> <p>20 there anything further that you would like to add or</p> <p>21 clarify in those reports?</p> <p>22 A. No, there's not, thank you.</p> <p>23 Q. And subject to the updates that you've just given us and</p> <p>24 the statements you will make in your opening remarks, do</p> <p>25 those represent your full and independent opinions</p> <p style="text-align: center;">Page 185</p>	<p>1 counterclaim. This slide is an overview of the timeline</p> <p>2 in this matter, and the key points on this is that the</p> <p>3 first dotted line in the top half is looking at</p> <p>4 a transaction where Allied acquired the NAE beneficial</p> <p>5 interests in which transaction NAE indemnified Allied</p> <p>6 for the events that occurred to the left of that dotted</p> <p>7 line. The second dotted line is when CPL acquired the</p> <p>8 NAE beneficial interests from Allied.</p> <p>9 My loss assessment has got three principal parts,</p> <p>10 but the biggest element is in respect of Allied's</p> <p>11 ownership of the NAE beneficial interest, and that's the</p> <p>12 small orange bar in the middle, and I assessed that loss</p> <p>13 at \$349 million.</p> <p>14 My instructions in respect of the counterclaim were</p> <p>15 to provide my opinion on the damages suffered by Allied</p> <p>16 and its affiliates in respect of the NAE beneficial</p> <p>17 interests and also the Allied and CINL beneficial</p> <p>18 interests. I was also instructed to provide my opinion</p> <p>19 on the difference of the market value, the NAE</p> <p>20 beneficial interest and the actual and "but for"</p> <p>21 scenarios in February 2014 when it was sold to CPL.</p> <p>22 It has been alleged that the oil production from Oyo</p> <p>23 central area has been adversely affected, and any change</p> <p>24 in the oil production will change the cash flows from</p> <p>25 the Oyo central area. The measure of damages is how</p> <p style="text-align: center;">Page 187</p>
<p>1 regarding the issues on which you've been instructed?</p> <p>2 A. Yes, they do. The joint statement is after my report,</p> <p>3 and so there are some things that might have been</p> <p>4 updated in the joint statement. But, yes, they do.</p> <p>5 MR WADE: Okay. I understand you have a presentation for</p> <p>6 the Tribunal.</p> <p>7 Presentation by MR TAYLOR</p> <p>8 MR TAYLOR: Yes, I do.</p> <p>9 Good afternoon. My name is Mark Taylor and I am the</p> <p>10 expert accountant instructed by the solicitors to the</p> <p>11 respondents. I have got a presentation of 24 slides,</p> <p>12 but many of them shouldn't require much discussion so</p> <p>13 I hope to keep on time.</p> <p>14 First, I am going to look at the respondents'</p> <p>15 counterclaim. Then I am going to look at the issues</p> <p>16 relating to the final adjustment statement.</p> <p>17 I colloquially refer to that as the FAS, so excuse me if</p> <p>18 I slip into that terminology. Followed by that I have</p> <p>19 got a very brief comment on each of the Oyo-5 GSO costs</p> <p>20 and the Oyo-7 drilling costs.</p> <p>21 As we have already heard, Mr Good and I actually</p> <p>22 agree on a lot of issues. So I will try not to dwell on</p> <p>23 what we agree, but I might have to talk about some of</p> <p>24 what we agree on to put some of the issues into context.</p> <p>25 My first area that I want to talk about is the</p> <p style="text-align: center;">Page 186</p>	<p>1 much more the cash flows would have been in the "but</p> <p>2 for" scenario over the actual scenario. So</p> <p>3 I, therefore, built a model that calculates the cash</p> <p>4 flows arising from the different levels of production</p> <p>5 from the Oyo central area. My model calculates the cash</p> <p>6 flows arising from the application of the production</p> <p>7 sharing contract and what cash flows the various</p> <p>8 interested parties would have received.</p> <p>9 Mr Good identified a number of minor issues with my</p> <p>10 initial model, and I updated my model for these. These</p> <p>11 updates are set out at appendix 1 to the joint</p> <p>12 statement.</p> <p>13 Mr Good and I agree that the final model that I've</p> <p>14 created properly models the cash flow from the</p> <p>15 production sharing contract. As Mr Good pointed out,</p> <p>16 we've got an agreed model between us.</p> <p>17 By running my model using inputs of oil production</p> <p>18 from either the actual scenario or inputs from the "but</p> <p>19 for" scenario we can determine the differences in the</p> <p>20 cash flows. There were a few inputs on which Mr Good</p> <p>21 and I agreed were secondary issues, and that's the</p> <p>22 change in the cash flows from those issues would affect</p> <p>23 the model, but we didn't know enough about those inputs</p> <p>24 to actually amend the amounts in my model. These are</p> <p>25 set out in appendix 2 to the joint statement. The two</p> <p style="text-align: center;">Page 188</p>

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<p>1 most important ones are the FPSO costs and the costs of 2 drilling the "but for" scenario wells, Oyo B and C. 3 The FPSO costs relate to the fact that NAE 4 negotiated a discount to the FPSO costs, and Mr Good 5 questioned whether the same level of reduction in the 6 FPSO costs would have been achieved in the "but for" 7 scenario, given that the "but for" scenario has higher 8 levels of productivity. 9 The "but for" scenario was modelled using the FPSO 10 as it actually was. That is with the compressors not 11 working. And Mr Nigido stated that the discount was 12 because the compressors weren't working. So, in my 13 opinion, as the same FPSO is assumed in the same 14 condition in the "but for" scenario and the actual 15 scenario, the FPSO costs represent the correct level of 16 costs in the "but for" scenario. 17 On the second point, looking at the costs of the 18 drilling of the "but for" scenario, the Oyo wells B and 19 C, I used the actual drilling costs of other wells as 20 proxies for the costs for those, and I think this is 21 an entirely sensible and reasonable approach. 22 Mr Good noted that Mr Payne had a view that a number 23 of factors might affect the costs of drilling the wells, 24 and so there was some uncertainty there. I acknowledge 25 that there might be factors that affect the costs of</p> <p style="text-align: center;">Page 189</p>	<p>1 historic periods. 2 The losses can also be considered in the tabular 3 format. It is not immediately clear from this which 4 lines are for the loss. So the top line A is the 5 biggest loss. That was the loss for the middle orange 6 bar I pointed out on the timeline. That's 349 million 7 using Dr Moy's forecasts. 8 The second biggest loss is row F, which is the top 9 part of the second half of the table, and that's 10 \$130.6 million, and the last significant loss is 28.3, 11 which is the second line, and that's the loss on the 12 sale to CPL of 23 February 2014. 13 Although we agree the numbers in the table, the 14 point that we don't agree, as discussed Mr Good earlier, 15 is that we don't agree whether that amount actually 16 represents a loss suffered by Allied, although we agree 17 the maths that gets to the number. As this is the only 18 significant area of potential disagreement between us on 19 the approach on the counterclaim, I thought I would just 20 explain in a little more detail how this arises. 21 Allied acquired the NAE beneficial interest for 22 \$250 million in December 2011 and two years later, at 23 the end of 2013, agreed to sell is for cash and CAMAC 24 Energy Inc shares, which was a total consideration of 25 \$416 million. Following the announcement of the deal,</p> <p style="text-align: center;">Page 191</p>
<p>1 drilling the wells, but I think using the proxies -- 2 using the real-life drilling costs as proxies is 3 reasonable, and there hasn't been an alternative value 4 put forward, and so I think my opinions are reasonable 5 on that basis. 6 My model that is agreed between us as properly 7 modelling the cash flows from the PSC shows the impact 8 of the production forecasts as per Dr Moy and 9 Mr Filippi. Using Dr Moy's forecasts, the losses are 10 527.9 million, and using Mr Filippi's forecasts they are 11 6.4 million. The difference between these is entirely 12 down to the different input assumptions for the 13 production volumes and timings from Dr Moy and 14 Mr Filippi. This is nicely illustrated by these two 15 charts, which I think we've all seen several times 16 before, which show the actual and "but for" by Dr Moy 17 and Mr Filippi. 18 It is immediately apparent that Dr Moy's view there 19 was a significant difference between the actual scenario 20 and the "but for" scenario, and that's what gives rise 21 to the significant loss, whereas in Mr Filippi's 22 forecasts there appears to be no such difference. 23 If you look at Dr Moy's forecasts, you can see that 24 the two lines, the actual and the "but for", diverge 25 most before 2016. That is the loss is in respect of</p> <p style="text-align: center;">Page 190</p>	<p>1 the CAMAC Energy share price rose and so the market 2 moved the price to the 576 million when it completed in 3 February 2014. 4 So Mr Good's position appears to be that because 5 Allied made a profit that it cannot possibly have 6 suffered a loss on that. But, in my opinion, had the 7 Oyo central reserve not been damaged, Allied would have 8 made more profit on the sale and that this extra profit 9 that it did not make does represent a loss suffered by 10 Allied. 11 NAE's beneficial interests that Allied bought and 12 sold relate to NAE's beneficial economic interests under 13 the PSC, and as we've discussed, the PSC is in respect 14 of OMLs 120 and 121, and that includes the Oyo central 15 oilfield, which is what Dr Moy and Mr Filippi have 16 modelled, but it is much broader than just the Oyo 17 central, and there's actual or potential value in Oyo 18 west, Oyo far east as well as potentially otherwise in 19 OML 120 and 121. 20 Dr Moy, Mr Filippi, Mr Good and I have focused on 21 only one element of what comprises the beneficial 22 interest that were sold. So none of us have considered 23 the actual or potential cash flows or value of the whole 24 of the OMLs because the values of the other aspects were 25 not likely damaged by the alleged wrongdoing.</p> <p style="text-align: center;">Page 192</p>

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<p>1 So when asked to consider the difference in the</p> <p>2 market value of the NAE beneficial interest as at that</p> <p>3 date, I couldn't do this by considering the whole value</p> <p>4 of the NAE beneficial interest, as we didn't have the</p> <p>5 data on that. So I, therefore, looked at the difference</p> <p>6 in the market value of one element and assumed the</p> <p>7 difference in that one element reflected a difference in</p> <p>8 the broader NAE beneficial interest.</p> <p>9 So using Dr Moy's "but for" and actual scenario</p> <p>10 I could model the difference in that, and that's the</p> <p>11 difference in the cash flows at that date which come to</p> <p>12 discounted \$28 million. So I cannot comment on how the</p> <p>13 holistic value of the OMLs have changed in the period</p> <p>14 but, in my opinion, if one element has been damaged and</p> <p>15 is worth less, then that reduction in value should be</p> <p>16 considered when considering the value of the whole.</p> <p>17 Now, I want to change topics and go on to the</p> <p>18 financial adjustment statement. The FAS submitted by</p> <p>19 NAE -- so the composition of the FAS is as set out in</p> <p>20 the amended SPA -- and the FAS submitted by NAE is</p> <p>21 claimed at \$48.1 million. My instructions were to</p> <p>22 consider whether the claimed items were within the list</p> <p>23 of 12 permitted items in the amended SPA and whether the</p> <p>24 evidence provided by NAE supported the items claimed.</p> <p>25 Mr Good and I have agreed the figures in the table</p> <p>Page 193</p>	<p>1 I applied five tests when deciding whether an item</p> <p>2 should be included in the FAS. The first test, which</p> <p>3 isn't on this slide, is whether there was any support</p> <p>4 for the item at all. When no support was provided for</p> <p>5 a cost claimed I didn't consider it was right to include</p> <p>6 that cost in the FAS.</p> <p>7 Where an item was ultimately supplied by a third</p> <p>8 party I sought third party support for that amount, and</p> <p>9 that's the fourth test on my slide there.</p> <p>10 My approach after that was to look at the language</p> <p>11 in the amended SPA. Like Mr Good I'm not a lawyer, but</p> <p>12 I tried to look at the language and the amended SPA sets</p> <p>13 out:</p> <p>14 "The positive adjustment shall include those items</p> <p>15 listed below."</p> <p>16 And, therefore, I sought to claim whether the items</p> <p>17 were described by one of the items listed in the amended</p> <p>18 SPA. I called items that were in the list permitted,</p> <p>19 and items that were not in the list non-permitted. So</p> <p>20 that's the first point on my slide there.</p> <p>21 The amended SPA also says to include items that are</p> <p>22 paid by the seller. So I, therefore, sought evidence</p> <p>23 that the items had been paid by the seller. I only</p> <p>24 looked for evidence such as order of payment. I didn't</p> <p>25 try tracing things through to bank statements because</p> <p>Page 195</p>
<p>1 in the joint statement, as we've already heard. In my</p> <p>2 first report I concluded that only 7.5 million of the</p> <p>3 48.1 million claimed met the criteria, but I've moved on</p> <p>4 since then. Mr Good exhibited more than 900 pages of</p> <p>5 new supporting documentation to his report, and my team</p> <p>6 and Mr Good's team worked together through that and</p> <p>7 we've now been able to move on and we have seen</p> <p>8 a further \$21.3 million worth of support to show that</p> <p>9 claims do relate to permitted items that were incurred</p> <p>10 in the right period and are supported by payment</p> <p>11 evidence.</p> <p>12 So I have, therefore, updated my initial opinion to</p> <p>13 28.1 million, which is as set out in the bottom</p> <p>14 left-hand corner of the numbers in this slide. We</p> <p>15 looked at a summary of the 21.3 million, which is</p> <p>16 appendix 7 to the joint statement, which was my appendix</p> <p>17 Mr Wade talked about earlier with Mr Good.</p> <p>18 Mr Good has also amended NAE's position, and</p> <p>19 I understand the claim is not for 48 any more but is for</p> <p>20 46.5.</p> <p>21 Mr Good and I have got a number of disagreements as</p> <p>22 to whether or not certain categories of costs should be</p> <p>23 included in the FAS, but we agree the amounts of each of</p> <p>24 these categories. So we've agreed all the numbers.</p> <p>25 We've gone through and agreed all of those.</p> <p>Page 194</p>	<p>1 that would have been a very onerous task.</p> <p>2 And the amended SPA includes items that were</p> <p>3 incurred during the period from December 31, 2011, up to</p> <p>4 completion. As completion was on 28 June 2012, I looked</p> <p>5 for evidence that the cost was incurred in that period.</p> <p>6 With regards to the GSO costs, the amended SPA</p> <p>7 states this "to the extent agreed by the parties", and</p> <p>8 my understanding is that Allied's case is that it was</p> <p>9 not agreed that the GSO costs should be included in the</p> <p>10 FAS.</p> <p>11 This slide shows my view that the top ten items in</p> <p>12 NAE's FAS tally with the items listed in the amended</p> <p>13 SPA, but the last six line items are not covered in the</p> <p>14 amended SPA. So, therefore, in my view, of the 48.1</p> <p>15 claimed only the amounts in the blue box, which then sum</p> <p>16 to 36.7 million, are permitted by the SPA.</p> <p>17 Going back to the table in the joint statement that</p> <p>18 we looked at earlier. The starting point appears to be</p> <p>19 the top right-hand corner 48.1 million, and my position</p> <p>20 is that in the bottom left of 28.1. Mr Good's position</p> <p>21 was 46.5, I think, but acknowledged there was no support</p> <p>22 for the sum bringing it down to the 45.4.</p> <p>23 Below that, there are three alternative lines. As</p> <p>24 Mr Good said, you can slice and dice this in almost as</p> <p>25 many ways as you like, but we do agree the numbers in</p> <p>Page 196</p>

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<p>1 this table.</p> <p>2 A further breakdown is at appendix 3, and it might</p> <p>3 be helpful if I just explain a couple of points on that.</p> <p>4 I think a larger appendix 3 was handed up earlier in</p> <p>5 a bigger format. (Pause).</p> <p>6 After this, I have only got a very brief point, so</p> <p>7 there is not much longer.</p> <p>8 THE CHAIRMAN: You're still within your time, as I see it.</p> <p>9 No, actually you're not. But people are being very</p> <p>10 relaxed.</p> <p>11 MR TAYLOR: Thank you. This is a similar table to the table</p> <p>12 in the joint statement, but it's been transposed, and so</p> <p>13 the columns are rows and the rows are columns.</p> <p>14 The categories are down the left and, you can see</p> <p>15 this breaks down the summary table into the individual</p> <p>16 categories. The left-hand column is the original</p> <p>17 amount, which you can see sums down to a total of</p> <p>18 48.1 million, which is four lines up from the bottom,</p> <p>19 and then that's just analysed into the permitted and the</p> <p>20 non-permitted according to my analysis. We've then got</p> <p>21 the column of Mr Good's adjustments, and then that's the</p> <p>22 updated amount.</p> <p>23 Then we go into two different ways of looking at</p> <p>24 things, column D and column E. Those references are</p> <p>25 just below the titles of the column.</p> <p style="text-align: center;">Page 197</p>	<p>1 different permutations from an analysis of appendix 3.</p> <p>2 THE CHAIRMAN: Thank you very much.</p> <p>3 MR TAYLOR: And very briefly, on Oyo -- on the GSO costs,</p> <p>4 Mr Good and I have agreed that the documentation and</p> <p>5 Allied's schedule record GSO costs of 44.5 million, and</p> <p>6 I've traced those into the audited financial statements.</p> <p>7 And similarly we have agreed that the documentation</p> <p>8 we've seen records costs of 154.7 million up to</p> <p>9 30 September 2015 for the Oyo-7 drilling costs.</p> <p>10 Thank you.</p> <p>11 THE CHAIRMAN: Thank you very much.</p> <p>12 MR NESBITT: Some good news to follow that, Mr Chairman. It</p> <p>13 is Mr Shoesmith.</p> <p>14 Cross-examination by MR SHOESMITH</p> <p>15 MR SHOESMITH: Good afternoon, Mr Taylor. Just while we're</p> <p>16 setting up, one point of clarification arising out of</p> <p>17 your presentation. I believe at one point you said that</p> <p>18 you understood the claim, irrespective of the</p> <p>19 adjustments was now for around \$45 million. That's not</p> <p>20 in fact accurate. The claimants maintain their claim</p> <p>21 for the entire \$48.1 million, and you and the Tribunal</p> <p>22 can see that at, among other places, from section 4.3 of</p> <p>23 the joint report. That's at bundle E3, tab 6, page 324</p> <p>24 but we don't need to go there now.</p> <p>25 Could we start very briefly by having a look at your</p> <p style="text-align: center;">Page 199</p>
<p>1 Column D and E are two alternatives, where D has</p> <p>2 looked at the amount supported by documentation, so</p> <p>3 that's any supporting documentation at all, and if you</p> <p>4 look down the bottom that's where you get the 45.4 that</p> <p>5 we saw earlier. And column E is looking it if you want</p> <p>6 to see that it was supported by payment evidence, and</p> <p>7 that comes to the lower number of 37.7.</p> <p>8 The analysis to the right works on pairs of columns.</p> <p>9 So column F and column G is another pair of columns, and</p> <p>10 they look at columns D and E. And they look to see</p> <p>11 whether the items in D or E were received in the right</p> <p>12 period. So F is looking at D but stripping out things</p> <p>13 that were outside of the period, so 203 and 96 stripped</p> <p>14 out, and G is looking at column E, which is where</p> <p>15 there's evidence of payment and stripping out things</p> <p>16 that were outside of the period.</p> <p>17 And similarly columns H and I are paired, and they</p> <p>18 look at D and E again. So H and I look at whether there</p> <p>19 was third party support. And so H is looking at where</p> <p>20 there's third party support at column D, and I is</p> <p>21 looking whether there is third party support for column</p> <p>22 E. Then the last two columns again are pairs, and</p> <p>23 that's summing up the total adjustments there.</p> <p>24 So you can analyse the numbers in many, many ways</p> <p>25 and that's -- and I think you can get most of the</p> <p style="text-align: center;">Page 198</p>	<p>1 instructions in bundle F16, tab 1. (Pause).</p> <p>2 You've set these out in a number of places, so</p> <p>3 I don't think we need to spend very long on them. The</p> <p>4 point I would like to just clarify is that these do not</p> <p>5 appear to be dated, but we understood from -- well,</p> <p>6 let's start, they are not dated but, as I understand it,</p> <p>7 these are instructions that were provided to Navigant,</p> <p>8 so to you and to Mr Dyson jointly; is that correct?</p> <p>9 A. That's my understanding, yes.</p> <p>10 Q. Very good. And Mr Dyson told us yesterday that he was</p> <p>11 instructed and he was involved in the drafting of the</p> <p>12 respondents' -- or the formation of the respondents'</p> <p>13 reply and defence to counterclaim that was served in</p> <p>14 August 2015. I wonder whether you were instructed at</p> <p>15 that point also?</p> <p>16 A. I don't think I was, no.</p> <p>17 Q. You weren't. So you weren't involved in formulating the</p> <p>18 respondents' reply alongside Mr Dyson?</p> <p>19 A. I don't believe so, no.</p> <p>20 Q. Okay. So when you did receive these instructions later</p> <p>21 than Mr Dyson, they were presumably your introduction to</p> <p>22 the case. You hadn't at that stage received any</p> <p>23 documents?</p> <p>24 A. I didn't say I received these later than Mr Dyson,</p> <p>25 I just said I didn't do work that fed into the document</p> <p style="text-align: center;">Page 200</p>

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<p>1 that you've mentioned.</p> <p>2 Q. Okay. But this was your introduction to the case. You</p> <p>3 hadn't received the documents along with your</p> <p>4 instructions?</p> <p>5 A. I can't remember if some documents came through first or</p> <p>6 this came through first.</p> <p>7 Q. I get that from paragraph 72 of the instructions on</p> <p>8 page 28, which is helpfully the same -- I'm sorry,</p> <p>9 page 22. Here you'll see the second sentence says:</p> <p>10 "We will provide you with documents referred to in</p> <p>11 the footnotes of these instructions by way of an online</p> <p>12 data room."</p> <p>13 So it suggests to me that either the documents were</p> <p>14 provided contemporaneously or subsequent to the</p> <p>15 instructions?</p> <p>16 A. "We request that you base your report and your</p> <p>17 independent expert opinion formed in the light of the</p> <p>18 information that has been made available to you."</p> <p>19 Q. Well, we can look at whichever --</p> <p>20 A. It then says:</p> <p>21 "We will provide you with the documents referred to</p> <p>22 in the footnotes of these instructions by way of an</p> <p>23 online data room."</p> <p>24 Q. But you don't recall whether documents had been made</p> <p>25 available to you?</p> <p style="text-align: center;">Page 201</p>	<p>1 SPA you would have classified the individual expenditure</p> <p>2 categories within the FAS as either permitted or</p> <p>3 non-permitted.</p> <p>4 Moving on to page 327, you've set out a list in</p> <p>5 between times, but you there say you further note that</p> <p>6 the positive adjustment can also include such other</p> <p>7 expenses as may be agreed between the parties. I am</p> <p>8 quoting here from the amended text of the SPA, and the</p> <p>9 outstanding -- to the extent agreed by the parties the</p> <p>10 outstanding payment in respect of the Oyo-5 GSO</p> <p>11 liabilities. However, you understand that it is the</p> <p>12 respondents' case that these items require</p> <p>13 post-completion agreement. And you have not seen any</p> <p>14 documentary evidence indicating that these items were</p> <p>15 agreed between the parties. So based on your analysis,</p> <p>16 your view is that the only -- only the ten items</p> <p>17 permitted identified above, that's the list we skipped,</p> <p>18 should be included as part of the positive adjustment.</p> <p>19 So that's a good summary of your position, isn't it?</p> <p>20 A. Yes.</p> <p>21 Q. Okay. That analysis is not set out in your first</p> <p>22 report, is it?</p> <p>23 A. I'm not sure. My first report came to a very different</p> <p>24 answer, because I had a very different amount of</p> <p>25 documentation, so I would have ...</p> <p style="text-align: center;">Page 203</p>
<p>1 A. I can't remember, no.</p> <p>2 Q. You're not suggesting that they were, you just don't</p> <p>3 remember?</p> <p>4 A. No.</p> <p>5 Q. Okay. We saw in your presentation, Mr Taylor, that</p> <p>6 there is a point of disagreement between the experts,</p> <p>7 yourself and Mr Good, as to whether items should be</p> <p>8 classified as permitted or not permitted expenses.</p> <p>9 Those are the items on the FAS, as you called it, the</p> <p>10 final adjustment statement.</p> <p>11 A. I did form an opinion, Mr Good didn't form an opinion,</p> <p>12 so I don't know if that's a disagreement, it's</p> <p>13 a different approach.</p> <p>14 Q. You haven't agreed your approach, we can worry about</p> <p>15 semantics. Your view is set out at section 4.4 of your</p> <p>16 joint report, if we look there first. It is volume E3,</p> <p>17 tab 6, page 325. So we're looking at section 4.4, your</p> <p>18 views as set out in the right-hand column, and your view</p> <p>19 is that as an independent chartered accountant you are</p> <p>20 qualified to provide your opinion on whether expenses</p> <p>21 should be classified as permitted or non-permitted in</p> <p>22 accordance with the provision of the amended SPA.</p> <p>23 You say, skipping down to the next paragraph, based</p> <p>24 on your review of the documentation available and the</p> <p>25 definition of the positive adjustment as per the amended</p> <p style="text-align: center;">Page 202</p>	<p>1 Q. You came to a different answer. Section 12 of your</p> <p>2 first report, which is in bundle E2, tab 5, page 333.</p> <p>3 Now, if I can explain, if we're all there, as I see</p> <p>4 it, 12.1 headed "Background" you're setting the scene.</p> <p>5 These paragraphs are largely taken word for word from</p> <p>6 your instructions, paragraphs 61 to 65, I think. That's</p> <p>7 not a criticism, I think that's just factually accurate.</p> <p>8 Would you agree?</p> <p>9 A. Yes.</p> <p>10 Q. Okay. But you've added a 12.1.6 on page 335 and 12.1.7.</p> <p>11 And 12.1.6 you list out what you consider to be and</p> <p>12 define as "permitted costs", and then in 12.1.7 you say:</p> <p>13 "In addition to the permit the costs above, NAE were</p> <p>14 able to claim for other expenses incurred during the</p> <p>15 relevant period which were agreed between the parties</p> <p>16 and to the extent agreed the outstanding payment in</p> <p>17 respect of the Oyo-5 GSO liabilities."</p> <p>18 So NAE were able to claim those other expenses, GSO</p> <p>19 liabilities, but you don't define those in any way.</p> <p>20 That's just a footnote, in effect, to your permitted</p> <p>21 list.</p> <p>22 A. I say they were able to "claim for other expenses which</p> <p>23 were agreed between the parties."</p> <p>24 Q. Mmm-hmm. But you don't define those as permitted or</p> <p>25 non-permitted or anything else, you just note that.</p> <p style="text-align: center;">Page 204</p>

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<p>1 A. Yes.</p> <p>2 Q. Yes. Your definition of "permitted costs" is taken from</p> <p>3 your instructions, isn't it?</p> <p>4 A. My instructions make reference to the term "permitted",</p> <p>5 I think, I can't -- do you want to go back to that.</p> <p>6 Q. Well, your instructions are helpfully set out at 12.2,</p> <p>7 so we can stay in the same document.</p> <p>8 A. Thank you.</p> <p>9 Q. "In respect of each of the 16 line items in the final</p> <p>10 adjustment statement, here is the nature of the expenses</p> <p>11 claimed as described in that statement and in the</p> <p>12 supporting spreadsheets and invoices such as to bring it</p> <p>13 within the list of 12 permitted items in paragraph 1,</p> <p>14 Part 1, Schedule 2 of the SPA as amended. If so, please</p> <p>15 identify, (b) if not, please describe cost claimed.</p> <p>16 "To what extent does the evidence provided be NAE</p> <p>17 support each of the items claimed, whether it is in the</p> <p>18 permitted list or not? Please identify supportive</p> <p>19 evidence made available at the time of the final</p> <p>20 adjustment statement."</p> <p>21 So the concept of permitted items and the list being</p> <p>22 the permitted items, that's something that you were</p> <p>23 told, wasn't it?</p> <p>24 A. We can see what my instructions were, yes.</p> <p>25 Q. Yes. Thank you. At 12.3 you then set out what you did.</p> <p style="text-align: center;">Page 205</p>	<p>1 you as 12 permitted items.</p> <p>2 THE CHAIRMAN: I leave this to Lord Hoffmann.</p> <p>3 MR SHOESMITH: I wondered how much indulgence I would enjoy.</p> <p>4 LORD HOFFMANN: What the witness has done is he's summarised</p> <p>5 certain headings of expenditure in table 19 of his first</p> <p>6 report, and he's categorised them as being, in his view,</p> <p>7 within or without what is permitted to charge for under</p> <p>8 the SPA.</p> <p>9 Now, it may be that as a matter of construction he's</p> <p>10 wrong about some item or other, but it is useful that</p> <p>11 he's simply listed them on that category. I mean,</p> <p>12 I don't see that you can really cross-examine him on</p> <p>13 whether he was wrong or right to list them as permitted</p> <p>14 or not permitted.</p> <p>15 MR SHOESMITH: I don't intend to say it is not useful and</p> <p>16 I don't intend to say he was wrong or right to</p> <p>17 categorise them in a particular way.</p> <p>18 LORD HOFFMANN: Right.</p> <p>19 MR SHOESMITH: What I am trying to establish is whether</p> <p>20 Mr Taylor looked at, as he says he's qualified to do,</p> <p>21 the entirety of the provision or whether --</p> <p>22 LORD HOFFMANN: Does it matter?</p> <p>23 MR SHOESMITH: Well, if his instructions are to classify</p> <p>24 something as permitted based on a list of 12 items, do</p> <p>25 they fall within the list or not --</p> <p style="text-align: center;">Page 207</p>
<p>1 You say here that, in 12.3.1(i):</p> <p>2 "In order to assess the nature of the expense</p> <p>3 category, I reviewed supporting documentation and</p> <p>4 summarised the nature of the expenses."</p> <p>5 Do you see that?</p> <p>6 A. Yes.</p> <p>7 Q. And then you go on to say that you looked to see whether</p> <p>8 expenses occurred in the relevant period, whether there</p> <p>9 was supporting document, proof of payments, amongst</p> <p>10 other things. That's what you set there. You don't say</p> <p>11 in this list that you looked at the SPA or the amended</p> <p>12 SPA.</p> <p>13 A. I am talking about permitted as per that list, and that</p> <p>14 list is from the amended SPA.</p> <p>15 Q. Permitted as per your instructions.</p> <p>16 A. It's permitted as -- I interpreted that "permitted" to</p> <p>17 be what's in the list of the amended SPA, so I -- sorry,</p> <p>18 I am not quite sure where you're going but I do</p> <p>19 reference back to the list in the amended SPA.</p> <p>20 Q. You do. I am just trying to establish whether you</p> <p>21 actually looked at the SPA and carried out</p> <p>22 an independent assessment at this stage, but you don't</p> <p>23 say that you've reviewed the SPA in this report. You</p> <p>24 simply say that you were asked whether certain costs</p> <p>25 were within a list of what was specifically described to</p> <p style="text-align: center;">Page 206</p>	<p>1 LORD HOFFMANN: Yes.</p> <p>2 MR SHOESMITH: -- that is very different from saying --</p> <p>3 LORD HOFFMANN: He has summarised in his list the nature of</p> <p>4 the expenditure. If you want to cross-examine him and</p> <p>5 say "Look there was an item of £500,000 which can't</p> <p>6 really be described as what you've described that as",</p> <p>7 that's one matter. But if you don't object to the</p> <p>8 categorisation, to then discuss with him whether he</p> <p>9 truly considered whether it fell within the terms of the</p> <p>10 SPA or not, that doesn't help. Do you see the point</p> <p>11 I am making?</p> <p>12 MR SHOESMITH: I think I can take the point, sir.</p> <p>13 LORD HOFFMANN: Do you see what I mean?</p> <p>14 MR SHOESMITH: I'm not sure I entirely do, but I take the</p> <p>15 point that this is not --</p> <p>16 LORD HOFFMANN: Take, for example, he says telecom services</p> <p>17 he regards as not permitted. Now, if you want to</p> <p>18 cross-examine him and say in that 180,000 that he's</p> <p>19 listed for telecom expenditure some of them are not</p> <p>20 telecom expenditure at all, that's perfectly</p> <p>21 permissible. But to argue with him as to whether</p> <p>22 telecom expenditure falls within the terms of the SPA or</p> <p>23 not, that doesn't help.</p> <p>24 MR SHOESMITH: I think --</p> <p>25 MR NESBITT: If I may, sir, I think the point that is being</p> <p style="text-align: center;">Page 208</p>

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<p>1 driven at is not so much whether he's right or wrong on</p> <p>2 permitted and non-permitted, it is simply he suggests</p> <p>3 that he conducted an independent contractual analysis of</p> <p>4 what the contract means, that's what he says.</p> <p>5 LORD HOFFMANN: Yes.</p> <p>6 MR NESBITT: But it appears from his instructions that he</p> <p>7 didn't do that, he was told what the contract meant and</p> <p>8 asked to assume it.</p> <p>9 LORD HOFFMANN: Well, so what?</p> <p>10 MR NESBITT: If you believe that that's not relevant, then</p> <p>11 fine.</p> <p>12 LORD HOFFMANN: Tell me why it's relevant.</p> <p>13 MR SHOESMITH: I think Mr Taylor has indicated he believes</p> <p>14 an independent chartered accountant he is qualified to</p> <p>15 opine on the meaning of the SPA, and I'm suggesting --</p> <p>16 LORD HOFFMANN: I don't believe he's putting forward such</p> <p>17 a thing at all. I don't see how he can really do the</p> <p>18 job unless he tells us which items he has regarded and</p> <p>19 disregarded.</p> <p>20 MR SHOESMITH: As I say, I have taken your point, sir, that</p> <p>21 you don't find it helpful, so we won't dwell on it.</p> <p>22 As part of your exercise, Mr Taylor, were you</p> <p>23 instructed to consider clause 11.2 of the SPA?</p> <p>24 A. Can I see that clause, please?</p> <p>25 Q. Certainly. It is in bundle A1, tab 1, unamended,</p> <p style="text-align: center;">Page 209</p>	<p>1 a crime, it's just a factual enquiry.</p> <p>2 A. I am sure I did read it, yes, I am sure I did look at</p> <p>3 it.</p> <p>4 Q. Let's move on to something else. You don't mention in</p> <p>5 your first report or indeed in the joint report the</p> <p>6 respondents' own reconciliation exercise of the final</p> <p>7 adjustment statement with the supporting documentation.</p> <p>8 Were you aware that that exercise had been conducted?</p> <p>9 A. No, I don't -- I'm not sure what was done by the</p> <p>10 respondents.</p> <p>11 Q. Okay. You didn't discuss their reconciliation with</p> <p>12 them?</p> <p>13 A. I didn't, no.</p> <p>14 Q. Now, in your first report you took the position in</p> <p>15 respect of the GSO liabilities that they were not</p> <p>16 permitted under the SPA because they did not relate to</p> <p>17 the relevant period. That's right, isn't it?</p> <p>18 A. Can you point me to that?</p> <p>19 Q. 12.6 of your first statement. It starts -- on page 346</p> <p>20 is a non-permitted expense categories but the relevant</p> <p>21 section is 12.6.18 on page 349 of the bundle. I think</p> <p>22 that's internal page 73, if that helps.</p> <p>23 A. Sorry, could you give me that reference again I will</p> <p>24 scribble them down.</p> <p>25 Q. 12.6.18 in you first report, the bundle page in the</p> <p style="text-align: center;">Page 211</p>
<p>1 page 25.</p> <p>2 A. Which was --</p> <p>3 Q. Clause 11.2, page 25. (Pause).</p> <p>4 Are you there?</p> <p>5 A. Yes, I have got the indemnity 11 -- in paragraph 11.</p> <p>6 Can you repeat the question, I don't have a transcript</p> <p>7 in front of me so I can't --</p> <p>8 Q. That's no problem. As part of the exercise you've</p> <p>9 conducted reviewing the SPA, in interpreting its</p> <p>10 provisions, perhaps, were you instructed to consider</p> <p>11 clause 11.2? I infer the answer is "no".</p> <p>12 A. I don't think I was explicitly instructed in the</p> <p>13 instructions to look at that clause.</p> <p>14 Q. And did you have cause, therefore, to look at it</p> <p>15 irrespective of any explicit instruction?</p> <p>16 A. Sorry, did you say absent explicit instruction?</p> <p>17 Q. You say you weren't explicitly instructed.</p> <p>18 A. Yeah, so --</p> <p>19 Q. Did you look at it in any event?</p> <p>20 A. Sorry, I can't read back what you've asked, so</p> <p>21 I clarified the point. In my instructions there was</p> <p>22 reference made to 11.1 and so I would have looked around</p> <p>23 it. So I would have seen other clauses in the SPA.</p> <p>24 I didn't just look at the specific items.</p> <p>25 Q. But you didn't consider in particular 11.2? It's not</p> <p style="text-align: center;">Page 210</p>	<p>1 bottom right-hand corner is 349.</p> <p>2 A. Yes. So you split out certain debit notes with little</p> <p>3 Roman numerals, and at the end of each one you say:</p> <p>4 "Both of the relevant invoices ..."</p> <p>5 Or you say whatever it is that you're looking at</p> <p>6 appear to relate to services provided outside the</p> <p>7 relevant period or that you consider outside the</p> <p>8 relevant period.</p> <p>9 A. I did note that they were all outside of the relevant</p> <p>10 period, yes.</p> <p>11 Q. You did, and you exclude them on that basis.</p> <p>12 A. Sorry, I did exclude them, yes.</p> <p>13 Q. But by the time of your joint report you accepted that</p> <p>14 that was wrong?</p> <p>15 A. I accepted that the GSO costs were not time-bound, yes.</p> <p>16 Q. They couldn't relate to the relevant period, as you term</p> <p>17 it by definition.</p> <p>18 A. They were outside that period, yes.</p> <p>19 Q. Yes, by definition the Oyo-5 GSO costs, as they are</p> <p>20 defined in the SPA, don't relate to the relevant period?</p> <p>21 A. They don't, and I am not --</p> <p>22 Q. You don't what the definition says?</p> <p>23 A. I don't know why you're saying by definition, no.</p> <p>24 Q. Okay.</p> <p>25 A. But they don't, they fall outside the period, yes.</p> <p style="text-align: center;">Page 212</p>

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<p>1 Q. You can see in fact from the amended SPA from the 2 positive adjustment that there is no time provision in 3 respect of Oyo-5 GSO liabilities, and that's in contrast 4 with the express reference to the period for the listed 5 items and for the other expenses. If you'd like to look 6 at that that's in bundle A -- 7 A. That one has gone back. Thank you. So bundle A -- 8 Q. Bundle A, tab 2 now. 9 A. Tab 2. 10 Q. And the page number is 66, that's the bundle reference, 11 internal page 5. 12 A. Yes. 13 Q. So do you see at the bottom of the page you have 14 a paragraph 12 and the bold heading "Positive 15 adjustment", and then the initial paragraph: 16 "The positive adjustment which will increase the 17 consideration shall include the items listed below." 18 If you skip ahead to line 3: 19 "... incurred during the period from 20 31 December 2011 up to completion." 21 So the listed items are time-bound. 22 I am sure you're very familiar with this provision 23 because you've analysed it. 24 Then in the next line, starting in the middle you 25 see "such other expenses as may be agreed".</p> <p style="text-align: center;">Page 213</p>	<p>1 an independent chartered accountant you're qualified to 2 "provide an opinion on whether the expenses should be 3 permitted or not permitted in accordance with the 4 provision of the amended SPA". 5 Now, we didn't want to pursue the question whether 6 you were only looking at a specific list and determining 7 whether they were permitted or not permitted on that 8 list, but if you're looking at this whole provision to 9 determine whether something is permitted or not it is 10 a major flaw in your reading of this provision to tie 11 the GSO costs, the liabilities, to the relevant period, 12 isn't it? That's a misreading of this provision? 13 A. My conclusion hasn't changed that whether they are -- 14 should be included or not. In my first report I noted 15 that they were outside the period, and I accept that 16 they're not time-bound, but my position has still stayed 17 the same, so they haven't come into my analysis and -- 18 Q. You exclude them for another reason, but it was 19 a misreading of the SPA to tie them to the relevant 20 period in your first report? (Pause). 21 It's a yes or no, I think. Did you misread the SPA 22 by tying it to the relevant period or not? 23 A. As I said, they are not time-bound. 24 Q. Above you've tied them to the relevant period in your 25 first report --</p> <p style="text-align: center;">Page 215</p>
<p>1 At the end of the following line, again they are 2 time-bound "incurred during the period from December 31 3 up until police". 4 And then finally you've got "and to the extent 5 agreed the Oyo-5 GSO liabilities". 6 But you see the words are missing there, they are 7 not time-bound? 8 A. Yes. 9 Q. So just reviewing this provision, you can see that they 10 were never time-bound. The relevant period wasn't 11 relevant to those costs? 12 A. That's what I've concluded in the end, yes. 13 Q. So having excluded them in your first report on the 14 basis that you consider they are outside the relevant 15 period, it is a pretty major flaw in your reading of 16 this provision, isn't it? 17 A. I did note that they were outside the period, but 18 I don't know if that was the only reason why I excluded 19 them, and the fact that we -- when I met with Mr Good 20 and we discussed it and we came to the conclusion that 21 they weren't time-bound, I think that that's -- I've 22 come to the conclusion, and it's my conclusion, the 23 ultimate conclusion, that matters. 24 Q. I agree that it's your ultimate conclusion that matters, 25 but you also say that your final position is that as</p> <p style="text-align: center;">Page 214</p>	<p>1 THE CHAIRMAN: Mr Shoesmith, you know we asked the experts 2 to meet and discuss and to agree on certain points, and 3 the experts have met and agreed on the points and, 4 therefore, we understand your point, but it's only valid 5 to a certain point. You can turn it around and see we 6 have an expert who sees that he needs to correct asking 7 and he corrects it, so -- 8 MR SHOESMITH: I find it entirely laudable, I just find it 9 strange that he doesn't acknowledge that that's what 10 he's done. But you still nevertheless stand by your 11 opinion that you are suitably qualified to express 12 an opinion on this provision, notwithstanding you 13 initially misread it? 14 A. The agreement does say that if there is a dispute it 15 could be referred to a chartered accountant or -- it 16 might not be the exact words, but one of the resolutions 17 is a referral to an expert determinator, a chartered 18 accountant, and that's a role that I do do and I have 19 done in the past. 20 Q. Let's move on to another topic. Your view is that 21 supporting documentation must be provided for the 22 financial adjustment statement costs claimed, and that 23 Allied should not be required to pay costs that are not 24 supported by documentation; that's right? 25 A. Yes.</p> <p style="text-align: center;">Page 216</p>

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<p>1 Q. And you also take issue with the type of documentation 2 provided. You're effectively saying that if the wrong 3 documentation is available, Allied is also not required 4 to pay. 5 A. I said if the right documentation is not available -- 6 Q. I take your point, yes. If the right documentation is 7 not available, you are not required to pay. The wrong 8 documentation is insufficient. 9 The type of documentation required is not something 10 that's specified in the SPA, is it? 11 A. The SPA says that it's -- that the amount should be paid 12 and so I have sought evidence to -- that something does 13 fulfil the criteria of the SPA, and the only evidence 14 I can find is documentary, so ... 15 Q. The SPA doesn't say that NAE needs to supply documents 16 proving that every item has been paid by a particular 17 date. It simply says that it must provide all material 18 documents that are relevant to the preparation of the 19 final adjustment statement. 20 A. Sorry, can you repeat that? 21 Q. The SPA doesn't itself say that documentation proving 22 payment within a particular period or otherwise must be 23 provided, does it? 24 A. No. 25 Q. It just says --</p> <p style="text-align: center;">Page 217</p>	<p>1 A. That's right, yes. 2 MR SHOESMITH: But you don't agree as between yourselves as 3 to what documentation would be sufficient? 4 A. I don't think we disagree, because I don't think Mr Good 5 has concluded -- Mr Good identified there was 6 1.1 million of costs where there's no documentation, but 7 I don't think he's -- 8 LORD HOFFMANN: Do you also disagree on the question of 9 whether if you've got a related party documentation but 10 you don't have the original third party documentation 11 whereby the related party acquired the goods or 12 services, you can nevertheless treat that as being 13 sufficient if you can make a proper tie-up between one 14 party has got what the other has. 15 A. I don't want to mischaracterise what Mr Good's 16 conclusion was and what opinion he formed. I can't 17 remember whether he did form an opinion on it. But, 18 yes, I certainly said that documentation from a third 19 party is stronger than the documentation from a related 20 party. 21 LORD HOFFMANN: Stronger, certainly, but did you go as far 22 as to say that documentation from a related party alone 23 will not do? 24 A. If it's from -- if the ultimate service was provided by 25 a third party --</p> <p style="text-align: center;">Page 219</p>
<p>1 A. It just says paid items are included, yes. 2 LORD HOFFMANN: If the SPA says that in the event of 3 a dispute it must be referred to an accountant, that 4 would suggest that the criteria as to what documents 5 must be provided and so forth would be generally 6 accepted audit practice or it might suggest that it 7 should have nothing to do with us. 8 MR SHOESMITH: You might interpret the SPA in a number of 9 ways. 10 But there is a dispute in any event, isn't there, 11 whether we take audit practice or otherwise between the 12 accountants, you don't agree as to what level of 13 documentation is required? 14 A. Mr Good and I haven't discussed audits at all. 15 LORD HOFFMANN: Pardon? 16 A. Mr Good and I haven't discussed audit practice. 17 MR SHOESMITH: I am not suggesting you have. Lord Hoffmann 18 raised audit practice. 19 A. I thought you said there had been a dispute between the 20 accountants, sorry I misheard, sorry. 21 Q. No, there's disagreement between the accountants, I'm 22 sorry. 23 LORD HOFFMANN: I gather you have both followed what would 24 be your normal packed in checking whether the expenses 25 are properly vouched.</p> <p style="text-align: center;">Page 218</p>	<p>1 LORD HOFFMANN: Yes. 2 A. -- then I would expect to see that third party invoice, 3 but when the service was something like a member of 4 staff from the third party, then there won't be that 5 documentation, so that's not the issue. 6 LORD HOFFMANN: Because Mr Good, I thought, was willing to 7 accept a related party invoice if he could trace it back 8 sufficiently into a service provided to that related 9 party by an outside third party, like the helicopters 10 example that he gave. 11 A. Yes. I did hear Mr Good, and I can't remember exactly 12 what he said, but, yes, I think he was saying that if 13 there's -- sometimes there can be a good trail and good 14 analysis. 15 LORD HOFFMANN: Exactly. 16 A. Yes. 17 LORD HOFFMANN: And did you disagree with him about that? 18 A. I said that I would like to see the third party invoice. 19 It must exist, and I would expect to tie it back. But 20 maybe it's a particularly onerous issue with the 21 helicopter invoices. I understand there are a very 22 large number of invoices. So I don't -- I'm not sure 23 Mr Good and I disagreed on that point. We just had 24 a slightly different view. And that's why we set 25 everything out in the different categories so that it</p> <p style="text-align: center;">Page 220</p>

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<p>1 can be sliced and diced and constructed as it should be.</p> <p>2 LORD HOFFMANN: Yes, right. Thank you.</p> <p>3 MR SHOESMITH: I can move away from that entirely, thank</p> <p>4 you.</p> <p>5 On 26 July 2012, Mr Taylor, NAE provided 1,225 pages</p> <p>6 of invoices and an Excel spreadsheet. You're aware of</p> <p>7 that, aren't you?</p> <p>8 A. Sorry, on 26 --</p> <p>9 Q. 26 July 2012 NAE provided the supporting documentation,</p> <p>10 and that -- it is in fact pleaded, you refer to in your</p> <p>11 report by reference to the pleadings, 1,225 pages of</p> <p>12 invoices and an Excel spreadsheet?</p> <p>13 A. I know they did provide a lot of information at</p> <p>14 an earlier date that I had available, yes.</p> <p>15 Q. Well, you refer to it at 12.1.9 of your first report.</p> <p>16 A. Yes.</p> <p>17 Q. I don't think we need to worry too much with that.</p> <p>18 That's the documentation that was provided.</p> <p>19 Now, that's quite a specific number. I am assuming</p> <p>20 that you didn't count the pages yourself?</p> <p>21 A. Me personally? No. I might get it wrong.</p> <p>22 Q. And in fact I think that was pleaded in November 2014,</p> <p>23 so unless I am mistaken someone either in the</p> <p>24 respondents or their counsel must have --</p> <p>25 A. I can't help you with who counted the page, no.</p> <p style="text-align: center;">Page 221</p>	<p>1 label with it?</p> <p>2 A. Okay.</p> <p>3 Q. I think those are GSO costs. We could have a look at</p> <p>4 it, if you like --</p> <p>5 THE CHAIRMAN: Sorry, is that exhibit R118?</p> <p>6 MR SHOESMITH: R118, yes.</p> <p>7 Now, I am assuming, because you've exhibited it to</p> <p>8 your report, these are the documents as provided by</p> <p>9 Stephenson Harwood, or the respondents. You didn't</p> <p>10 remove anything from those documents that you thought</p> <p>11 was irrelevant, and you didn't add anything to them that</p> <p>12 you obtained from another source? You wouldn't have</p> <p>13 done that?</p> <p>14 A. I can't think that I would have, no.</p> <p>15 Q. No, okay. Are you able to confirm that MPJT24 is the</p> <p>16 Excel spreadsheet that was supplied with the</p> <p>17 thousands -- 1,225 of invoices?</p> <p>18 A. Not just be looking at it there, but it --</p> <p>19 Q. Would you like to look at them?</p> <p>20 A. But I don't even know if I would be able to by looking</p> <p>21 at it there.</p> <p>22 Q. Okay. I think it is right --</p> <p>23 A. Yes --</p> <p>24 Q. I'm happy to take you to it --</p> <p>25 A. -- I'm not saying I don't think it is, I just don't know</p> <p style="text-align: center;">Page 223</p>
<p>1 Q. I will leave it at that.</p> <p>2 At appendix B to your first report you set out the</p> <p>3 information you relied upon. If we stay in your first</p> <p>4 report, because it's at page 357. And the information</p> <p>5 you relied upon includes the supporting documents</p> <p>6 provided to you by the respondents as provided by NAE on</p> <p>7 26 July.</p> <p>8 I just want to check that we're looking at the right</p> <p>9 things. So I think the supporting documents are your</p> <p>10 exhibits MPJT21, which has a horrible name, as they all</p> <p>11 do, I'm afraid, but ends "FPSO rentals Oyo". Do you see</p> <p>12 that on --</p> <p>13 A. Yes, I see it, yes.</p> <p>14 Q. And that goes down to MPJT39, all these are supporting</p> <p>15 documents --</p> <p>16 A. Yes.</p> <p>17 Q. -- provided to you. It also includes MPJT86, at the</p> <p>18 very end of the list. That is a maintenance repairs</p> <p>19 approval 3. And I think it also includes exhibit R118,</p> <p>20 which is at the very top of the list before you start</p> <p>21 your own exhibits, and that relates to the GSO costs</p> <p>22 that was exhibited in the arbitration before you were</p> <p>23 instructed.</p> <p>24 A. I can't see R18, do I need to see it?</p> <p>25 Q. On 357, it's just above your MPJT1, but there is no</p> <p style="text-align: center;">Page 222</p>	<p>1 why you --</p> <p>2 Q. I just wonder whether you recall having seen the</p> <p>3 spreadsheet and various supporting documents --</p> <p>4 A. Yes, there was spreadsheets and some supporting</p> <p>5 documents, yes.</p> <p>6 Q. So you're happy to say it is MPJT24. But you can come</p> <p>7 back. I am sure if I am wrong on that, someone will</p> <p>8 tell me.</p> <p>9 Would it be very unfair, given you're an accountant,</p> <p>10 to ask you to do a little bit of arithmetic? I can</p> <p>11 offer you a pen and paper if it helps.</p> <p>12 A. I have a pen and paper.</p> <p>13 Q. You have a pen and paper or --</p> <p>14 A. I have a pencil and Post-its. Thank you.</p> <p>15 Q. Again, someone will shout if I can't read, but I've just</p> <p>16 opened each of these exhibits in PDF form so that I can</p> <p>17 see the number of pages, and I appreciate this isn't the</p> <p>18 most exciting line of questioning but if I could have</p> <p>19 the indulgence of the Tribunal. So R118 is 87 pages.</p> <p>20 MPJT21 is 23.</p> <p>21 LORD HOFFMANN: Have you added them up yourself?</p> <p>22 MR SHOESMITH: I have.</p> <p>23 LORD HOFFMANN: Well, why not just tell us?</p> <p>24 MR SHOESMITH: I'm happy to tell you. I don't want anyone</p> <p>25 to tell me that as a lawyer I've --</p> <p style="text-align: center;">Page 224</p>

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<p>1 THE CHAIRMAN: You are not qualified.</p> <p>2 MR SHOESMITH: Precisely.</p> <p>3 I would be the first -- I make the number of the</p> <p>4 pages of the various exhibits you've submitted, taking</p> <p>5 out MPJT24, which is the spreadsheet, and we say 1,225</p> <p>6 plus the spreadsheets I make that 1,156 pages. It's</p> <p>7 just an opinion, yes.</p> <p>8 MR WADE: Is there a question?</p> <p>9 THE CHAIRMAN: I thought that one of the points, and you can</p> <p>10 correct me, Mr Taylor, but one of the points that was</p> <p>11 being made was a certain amount of material was</p> <p>12 supplied, whether it is 1,200 or 1,1001 --</p> <p>13 MR SHOESMITH: And the subsequent amount of material was --</p> <p>14 THE CHAIRMAN: That was with the CD-ROM, and then there was</p> <p>15 additional material supplied, and then there was further</p> <p>16 material supplied with Mr Good's --</p> <p>17 MR SHOESMITH: I am going to come on to that, if I may.</p> <p>18 THE CHAIRMAN: I am sorry to anticipate you --</p> <p>19 MR SHOESMITH: No, no, not at all.</p> <p>20 THE CHAIRMAN: -- but I thought that was what the point of</p> <p>21 the discussion was, but I will leave it to you,</p> <p>22 Mr Shoesmith, to follow that. Have I got that right?</p> <p>23 MR SHOESMITH: I'm sorry to leave you in suspense.</p> <p>24 A. I think so, yes, sir.</p> <p>25 THE CHAIRMAN: Okay. Very good. Mr Shoesmith, please.</p> <p style="text-align: center;">Page 225</p>	<p>1 order of the 70 or you take off the 13 pages for the</p> <p>2 spreadsheet that was --</p> <p>3 Q. But you can't actually say what was supported and what</p> <p>4 was not supported as of 26 July 2012 because you haven't</p> <p>5 been supplied --</p> <p>6 A. I don't know what was in those other pages.</p> <p>7 Q. -- with the information, no.</p> <p>8 The chairman will be pleased to know that I am</p> <p>9 getting on to his point.</p> <p>10 The respondents' position is that CIL is only</p> <p>11 required to pay costs under the adjustments guarantee if</p> <p>12 they are supported by the documents supplied on</p> <p>13 26 July 2012. Are you aware of that?</p> <p>14 A. Can you repeat? You talked about a guarantee. Is that</p> <p>15 different to --</p> <p>16 Q. Yes, so there are a number of respondents in this</p> <p>17 case --</p> <p>18 A. Okay.</p> <p>19 Q. -- and there is the question in respect of Allied we're</p> <p>20 here to discuss that today, but part of the arbitration</p> <p>21 has been in respect of another respondent, CIL, as we</p> <p>22 call it.</p> <p>23 A. Yes.</p> <p>24 Q. In their pre-hearing submissions at paragraph 13.3(vi)</p> <p>25 the respondents suggested that this other respondent,</p> <p style="text-align: center;">Page 227</p>
<p>1 MR SHOESMITH: 1,156, so at this stage we seem to be missing</p> <p>2 70 approximate pages.</p> <p>3 A. 70. Did you include the spreadsheets?</p> <p>4 Q. I didn't, and if that helps you that is 13 pages. So</p> <p>5 we're still quite a number of pages short.</p> <p>6 THE CHAIRMAN: The two of you are getting --</p> <p>7 A. We are getting closer.</p> <p>8 MR SHOESMITH: It is as far as my maths goes.</p> <p>9 A. Was the spreadsheet PDF, so --</p> <p>10 Q. The copy that you supplied with your report is PDFs.</p> <p>11 I am inferring from our previous discussion that you</p> <p>12 weren't aware that those documents that you were</p> <p>13 supplied were potentially incomplete based on the</p> <p>14 respondents' --</p> <p>15 A. I didn't do a page count, no.</p> <p>16 Q. No. But assuming they are incomplete, that does affect</p> <p>17 the integrity of the review based on those documents,</p> <p>18 doesn't it?</p> <p>19 A. I reviewed the documents that I was given.</p> <p>20 Q. It's not a criticism of you but if 1,225 pages were</p> <p>21 supplied by NAE and the question is whether NAE</p> <p>22 adequately supported its final adjustment statement and</p> <p>23 you were only given 1,156 or maybe slightly more --</p> <p>24 A. The 21.3 million gap that we've got to now was 980</p> <p>25 documents, something -- 980 pages. So it's a different</p> <p style="text-align: center;">Page 226</p>	<p>1 CIL, is only required to pay costs under the adjustments</p> <p>2 guarantee, that's its contract with NAE, if they are</p> <p>3 supported by documents that were provided on</p> <p>4 26 July 2012. I take it you weren't aware of that?</p> <p>5 A. No.</p> <p>6 Q. And that's why it is relevant to establish what</p> <p>7 documentation we have.</p> <p>8 THE CHAIRMAN: Are we back to the adjustments guarantee now?</p> <p>9 MR SHOESMITH: The simple point is on the supporting</p> <p>10 documentation. So for CIL it is said, we don't</p> <p>11 understand precisely why, that only the documentation</p> <p>12 supplied on 26 July 2012 --</p> <p>13 THE CHAIRMAN: Oh, I see.</p> <p>14 MR SHOESMITH: -- is relevant.</p> <p>15 THE CHAIRMAN: I think I understand.</p> <p>16 MR SHOESMITH: But the respondents haven't provided</p> <p>17 Mr Taylor for review those documents. They seem to have</p> <p>18 counted them up, they seem to have them but they haven't</p> <p>19 provided them, so we can't say with any certainty what</p> <p>20 was and what wasn't supported.</p> <p>21 THE CHAIRMAN: Thank you very much.</p> <p>22 MR SHOESMITH: Now, the respondents calculate the amount</p> <p>23 supported by documents provided on 26 July 2012 was</p> <p>24 \$6.8 million. That's not a figure you've given them, is</p> <p>25 it?</p> <p style="text-align: center;">Page 228</p>

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<p>1 A. The figure I gave of 7.5 million, I hadn't treated the 2 tax properly in that, and so there are tax adjustments. 3 So if you take the -- my number and then take off the 4 tax adjustments, we get to Mr Shoesmith's number, and 5 then add back on my 21.3, we get to the number in my 6 table. So you can see that actually it was a number 7 that I have used. I didn't -- 8 Q. I was going to come on to your 21.3, so just to clarify, 9 then, your treatment of tax issue that's not you 10 reclassifying documents saying that documents that you 11 previously thought were sufficient to get to 7.5 were 12 provided subsequently, and that's a separate issue, 13 isn't it? Your 21.3 doesn't include -- 14 A. No, my 21 -- so in my first report I said 7.5. 15 I subsequently identified that I had mistreated some tax 16 and it should have been 6.8. We've now got the -- 17 adding back the 21.3 that we've now got, brings me to 18 the number in the bottom of this schedule, which is the 19 28.1. 20 Q. Just for my reference, because I hadn't picked up the 21 change in your tax treatment, where is that set out, 22 presumably in your joint report? 23 A. I can't remember, sorry, I will have to look for that. 24 Q. I don't think it is sufficiently important to dwell on, 25 if you don't know off the top of your head, that's fine.</p> <p style="text-align: center;">Page 229</p>	<p>1 A. Yes, the fact the respondent has seen a document doesn't 2 mean it knows to tie that document to the FAS. 3 THE CHAIRMAN: Were they documents stamped and transmitted 4 as part of the -- with the CD or is it -- 5 MR SHOESMITH: As far as we know, based on the documents the 6 respondents have provided to Mr Taylor they weren't with 7 the CD, no, but they'd seen them before. Maybe we could 8 just go to one of those. (Pause). 9 If a party receives a document in support of a claim 10 of costs but it doesn't receive a duplicate of that 11 document on a CD at a particular time, does that mean, 12 in your view, that they're not liable to pay for the 13 cost? 14 A. If a party -- 15 Q. If I send you an invoice -- 16 A. Yes. 17 Q. -- and I agree that I will send you a bundle of invoices 18 so that you can understand the statement, but I omit to 19 send that particular invoice that you already have, does 20 that mean you're not liable to pay it, in your view, as 21 an accountant? Would you expect a party to say "I don't 22 have to pay that" in your -- 23 A. Well, if it was obvious that I had the invoice and 24 I wasn't just turning a blind eye to it saying I can't 25 see it, even though it is there on my desk, then I don't</p> <p style="text-align: center;">Page 231</p>
<p>1 But you changed your view on tax? 2 A. Yes, yes, as I said, and in my first report. 3 Q. Now, the additional material that was supplied by 4 Mr Good you addressed that in the joint statement at 5 section 4.3. So we're in bundle E6 -- sorry, E3, tab 6, 6 page 324. 7 A. Yes. 8 Q. Now, you say here that this information was new to you. 9 It was supplied to you for the first time with Mr Good's 10 report. That's right, isn't it? 11 A. That's what I say, yes. 12 Q. But the respondents had seen it before, hadn't they? 13 A. They had seen some of it before. 14 Q. You can tell from the face of the documents what they'd 15 seen before. 16 A. Those with their stamp on presumably they had seen 17 before, yes. 18 Q. There are a number of documents with the stamp on so we 19 don't necessarily need to go there, but starting in 20 bundle F35 those are Mr Good's exhibits starting at 21 tab 15, 15 through 21, tabs 23 to 32, and then in 22 bundle F36, tabs 33 and 34, all of those documents. 23 I don't expect you to remember them in detail, but there 24 is a body of documentation which has the respondents' 25 stamp on it.</p> <p style="text-align: center;">Page 230</p>	<p>1 think that does mean you have to pay it. But if it's 2 an invoice I received a long time ago and I can't find 3 it, then I think to say if the claim was meant to be 4 supported, I think you could say "I can't find that 5 invoice can you please provide me with a copy". So 6 I don't think it is a yes or no answer. 7 Q. All right. If the party then provides you with that 8 invoice you'd accept at that point that you should pay 9 it? 10 A. Yes. 11 Q. You consider do you that -- I've done some maths, I'm 12 sorry -- 99.9 per cent of the \$9.3 million included on 13 the FAS in respect of the GSO costs, you consider that 14 paid by NAE? You've seen evidence for that, haven't 15 you? 16 A. I think that's right, yes, I think so. 17 Q. You record that in your -- I think it is appendix 3, the 18 large document that we keep going to. There is just 19 \$8,000 -- the chairman opened it. Would you like to 20 have a look at that? 21 THE CHAIRMAN: No, please continue. I am looking at it. 22 I will try to find the \$8,000 as you talk. 23 MR SHOESMITH: The claim is for 9.3, and you'll see two line 24 9.3 there is \$8,000 not supported by payment evidence. 25 Please let me know if you need the reference.</p> <p style="text-align: center;">Page 232</p>

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<p>1 I would like to move on to the counterclaims briefly.</p> <p>2 A. Is there anything I can put away?</p> <p>3 Q. You can certainly put that document away. I don't need</p> <p>4 to take you to a document immediately.</p> <p>5 A. Okay.</p> <p>6 Q. An important element of the counterclaims are the costs</p> <p>7 of the Oyo-5 GSO that we've just touched upon and the</p> <p>8 cost of drilling the Oyo-7 well, aren't they? They were</p> <p>9 a component of the loss?</p> <p>10 A. Yes, they parts of -- they are costs associated with the</p> <p>11 Oyo central, yes.</p> <p>12 Q. Now, we've been talking about the evidence that NAE</p> <p>13 supplied and that you say is necessary to substantiate</p> <p>14 its claims for operating costs, including the costs of</p> <p>15 the GSO. You say that considerable documentation is</p> <p>16 required. You want to see the invoice. You want to see</p> <p>17 payment evidence. You want to see all of those</p> <p>18 documents. So over 1,200 pages of invoices and</p> <p>19 a summary spreadsheet. It's the respondents' position,</p> <p>20 I am not sure it is entirely your position, that that is</p> <p>21 insufficient to justify NAE's overall claim for</p> <p>22 operating costs?</p> <p>23 A. Well, that 1,200 didn't support it, did it? Don't</p> <p>24 forget there are extra 918 other to.</p> <p>25 Q. But there is a considerable body of invoices that have</p> <p style="text-align: center;">Page 233</p>	<p>1 A. Yes. Some of the GSO costs, there is -- the total</p> <p>2 amount can be seen in the accounts, and then I ask for</p> <p>3 a breakdown of that. But it reconciles in and they are</p> <p>4 audited accounts and so I relied on those numbers, yes.</p> <p>5 MR SHOESMITH: Have you finished, sir?</p> <p>6 PROFESSOR LEW: Just to follow-up, one thing. This is</p> <p>7 a question asked earlier I think by Lord Hoffmann. In</p> <p>8 this context, are you looking at the rules when you are</p> <p>9 trying to determine that amount or are you looking at</p> <p>10 the rules for auditing? Are you looking at the rules</p> <p>11 for determining a potential liability between the</p> <p>12 parties which involves the contract?</p> <p>13 A. For the GSO and the Oyo-7 drilling costs I was just</p> <p>14 looking for the amounts in the accounts that had been</p> <p>15 audited. I am not an auditor, sir. I haven't done</p> <p>16 an audit since 1993, so I can't claim to know what the</p> <p>17 audit procedures for that are. But I was satisfied by</p> <p>18 the fact that they were in the accounts and flowed</p> <p>19 through and are in the audited accounts.</p> <p>20 MR SHOESMITH: The GSO costs that we're talking about here,</p> <p>21 those are that you say are fixed determinable costs they</p> <p>22 are the same GSO costs that in fact NAE is claiming on</p> <p>23 FAS, aren't they?</p> <p>24 A. The 9.3 in the bottom line, yes.</p> <p>25 Q. It's the same operation, so it's when you say that when</p> <p style="text-align: center;">Page 235</p>
<p>1 been supplied but it didn't support that --</p> <p>2 A. It only supported 6.8, so, yes --</p> <p>3 Q. Based on the partial set that you received.</p> <p>4 In respect of a claim for approximately \$200 million</p> <p>5 of GSO costs and drilling costs by the respondents, you</p> <p>6 are satisfied by a handful of spreadsheets, in effect,</p> <p>7 without supporting invoices, without payment</p> <p>8 documentation of any kind?</p> <p>9 A. They are very different situations. The FAS is looking</p> <p>10 at supporting a claim that is an amount that's -- so</p> <p>11 effectively floating, it is not tied down to anything.</p> <p>12 Whereas the GSO costs and the Oyo-7 drilling costs are</p> <p>13 amounts that are identifiable and flow into the</p> <p>14 financial accounts of the parties. And so I can see</p> <p>15 those flowing into the accounts, and the accounts are</p> <p>16 audited accounts, so I think that they are tied down and</p> <p>17 they've gone through a process and they have been what</p> <p>18 has been audited. So --</p> <p>19 Q. I don't think you rely on the audited accounts, though,</p> <p>20 do you?</p> <p>21 A. They do -- they all flow in, yes. They flow into the</p> <p>22 financial statements.</p> <p>23 PROFESSOR LEW: Does that mean you just look at the</p> <p>24 accounts, you look at the ledgers, rather than look to</p> <p>25 see if there's supporting evidence, supporting --</p> <p style="text-align: center;">Page 234</p>	<p>1 they're a claim on the part of the respondents, they're</p> <p>2 a fixed cost, but then when NAE is claiming them they're</p> <p>3 an indeterminate flowing cost, I'm not sure I follow.</p> <p>4 Surely you have to treat the same cost in the same way,</p> <p>5 haven't you?</p> <p>6 A. The GSO costs and the FAS are a separate line item,</p> <p>7 and -- I will have to look and see what the analysis of</p> <p>8 those were.</p> <p>9 Q. I'm not suggesting the amount -- the residual amount</p> <p>10 owed to NAE is identical to the amount that is being</p> <p>11 claimed back because I think the respondents are</p> <p>12 claiming the totality of the GSO costs. But it is still</p> <p>13 the same cost item, isn't it, that you've just said was</p> <p>14 fixed?</p> <p>15 A. Yes.</p> <p>16 Q. So if NAE claims from the respondents, it needs to</p> <p>17 provide substantial invoice documentation, payment</p> <p>18 evidence, but in respect of those same costs flowing in</p> <p>19 the opposite direction the claim can be supported by</p> <p>20 a simple breakdown that your client sends you?</p> <p>21 A. Well, the -- on appendix 3 we can see how the GSO costs</p> <p>22 were supported of the 9311. This 9311 was supported by</p> <p>23 documentation.</p> <p>24 Q. But you don't allow those costs, they are not permitted.</p> <p>25 A. My position on those costs is that it wasn't agreed by</p> <p style="text-align: center;">Page 236</p>

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<p>1 the parties and so I haven't included them.</p> <p>2 Q. Could we just look at one of those, an example then, in</p> <p>3 bundle F35. The position is true for all of them.</p> <p>4 Let's look at tab 24. We start with an email, I hope --</p> <p>5 A. Yes.</p> <p>6 Q. -- from a Martins Nwosu. A camac.com email address</p> <p>7 indicates that Mr Nwosu, I assume, is of the respondents</p> <p>8 and that's to individuals at NAE.</p> <p>9 A. Yes.</p> <p>10 Q. So this email is sent 27 June 2011:</p> <p>11 "Dear Francesco, please find attached the Aker</p> <p>12 pro forma invoices on Oyo-5 well intervention ..."</p> <p>13 So that's the GSO:</p> <p>14 "... endorsed by NAE/Allied/CPL for final invoice."</p> <p>15 So that's endorsed by everybody. That's an approved</p> <p>16 invoice, then, that's attached?</p> <p>17 A. Yes.</p> <p>18 Q. It's got Allied's signed stamp, CAMAC Petroleum Ltd's</p> <p>19 signed stamp, to the extent relevant, and various other</p> <p>20 stamps.</p> <p>21 A. Yes.</p> <p>22 Q. So if a party receives an invoice, a pro forma invoice,</p> <p>23 reviews it, stamps it, sends it back to the operator and</p> <p>24 says "Please issue the final invoice", is it fair to</p> <p>25 infer that it's agreed, the amount of that invoice?</p> <p style="text-align: center;">Page 237</p>	<p>1 I think you've just told me that this would be evidence</p> <p>2 of agreement?</p> <p>3 A. They have to be agreed to be included on the FAS.</p> <p>4 That's my understanding of the agreement.</p> <p>5 Q. So they've agreed a cost but they haven't then</p> <p>6 subsequently re-agreed it to include it in the FAS is</p> <p>7 your position?</p> <p>8 A. The FAS says that to the extent it is agreed to be</p> <p>9 included, then it can be. So I've seen these -- I've</p> <p>10 said in the analysis that these are documents that are</p> <p>11 supported -- these are costs that are supported.</p> <p>12 Q. But you exclude them from the amount that you say NAE</p> <p>13 should be entitled --</p> <p>14 A. Yes, for the reasons I have there said, yes.</p> <p>15 Q. Yes, notwithstanding the evidence of --</p> <p>16 A. They are agreed and the parties seem to be disputing</p> <p>17 that. That's one of the reasons why we're here, so ...</p> <p>18 Q. Let's talk briefly then about the sale of the NAE</p> <p>19 beneficial interest to CEL. That's another component of</p> <p>20 your loss calculation.</p> <p>21 A. Can I put this F bundle away?</p> <p>22 Q. Please do, yes. You don't need that any more.</p> <p>23 Now, going back to your joint statement, your joint</p> <p>24 report --</p> <p>25 A. Yes.</p> <p style="text-align: center;">Page 239</p>
<p>1 A. Yes, I think so.</p> <p>2 Q. You think so?</p> <p>3 THE CHAIRMAN: Could we just take a break for five minutes</p> <p>4 and then we can resume?</p> <p>5 MR SHOESMITH: Yes.</p> <p>6 THE CHAIRMAN: Sorry.</p> <p>7 MR SHOESMITH: Not at all.</p> <p>8 (5.10 pm)</p> <p>9 (A short break)</p> <p>10 (5.14 pm)</p> <p>11 THE CHAIRMAN: Mr Shoesmith.</p> <p>12 MR SHOESMITH: So I think where we had gotten to, Mr Taylor,</p> <p>13 is that you'd agreed that the stamped invoice that we</p> <p>14 just looked at and the process of stamping a pro forma,</p> <p>15 sending it back, that shows agreement to that cost just</p> <p>16 before the break, didn't we?</p> <p>17 A. Yes.</p> <p>18 Q. Okay. The Tribunal will be relieved to know I'm not</p> <p>19 going to go through all of the invoices, but I gave the</p> <p>20 references earlier to Mr Good's exhibits so they will be</p> <p>21 on the transcript. To the extent that you would like to</p> <p>22 go and check, then you are very welcome to do so. The</p> <p>23 same process is shown in respect of all of the</p> <p>24 supporting documentation for the GSO costs. So where</p> <p>25 you say you haven't seen evidence that they were agreed,</p> <p style="text-align: center;">Page 238</p>	<p>1 Q. -- E3, tab 6, page 315, you indicate here, in fact, the</p> <p>2 experts agree that the instructions that you record in</p> <p>3 your first report are not the instructions that you</p> <p>4 received.</p> <p>5 A. Just in this section, yes, I --</p> <p>6 Q. Yes.</p> <p>7 A. The instructions are as per the introduction of my</p> <p>8 report.</p> <p>9 Q. Okay. The background is set out here. The difference,</p> <p>10 just so that we all understand, is essentially that your</p> <p>11 instructions, your actual instructions, seek to compare</p> <p>12 the market value of the NAE beneficial interest on the</p> <p>13 one hand with a hypothetical value of that interest; is</p> <p>14 that right?</p> <p>15 A. Can I just see my instructions?</p> <p>16 Q. Sure. (Pause).</p> <p>17 They are in your first report, if it helps you.</p> <p>18 A. Yes.</p> <p>19 Q. 1.1.4. (Pause).</p> <p>20 It is the (b) that I think we're looking at for this</p> <p>21 part:</p> <p>22 "The difference in the market value of the NAE</p> <p>23 beneficial interest on 23 February 2014 and its value on</p> <p>24 the same date assuming ..."</p> <p>25 And you give a hypothesis.</p> <p style="text-align: center;">Page 240</p>

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<p>1 So it's the market value of the NAE beneficial 2 interest compared with a hypothetical of that same 3 interest; yes? 4 A. Yes. 5 Q. But what you record as being your instructions in your 6 first report is a comparison of the market value of that 7 interest against the consideration received by Allied 8 for that interest. That's the point that you're 9 addressing in your joint report here, isn't it, that 10 difference? 11 A. I remember that I put my instructions down wrong in that 12 section of my report. I can't remember what I said. 13 Q. In 7.1.2 -- 14 A. Yes. 15 Q. -- you say you have been instructed to assess the 16 difference between the \$576 million received by Allied 17 and the market value of the NAE beneficial interest on 18 3 February 2014. 19 A. Yes. 20 Q. So that's why I say "the market value against the 21 consideration received". You make the comment in the 22 joint report because those are fundamentally different 23 exercises, aren't they? 24 A. The actual instructions and the wrong instructions? 25 Q. Yes.</p> <p style="text-align: right;">Page 241</p>	<p>1 Q. So you weren't ever asked to opine on the issue that you 2 misrecord as having been your instructions? 3 A. I don't think so, no. 4 Q. It's just a coincidence that you record as your 5 instructions an exercise that is relevant to an issue 6 that's pleaded as between the parties? 7 A. I am getting lost in the questions. 8 Q. You weren't aware that there was a dispute between the 9 parties as to the relevance of the consideration on the 10 question of whether Allied suffered any loss? And 11 I asked if it's a coincidence that you happen to have 12 recorded in your report as your instructions that you 13 should have performed an analysis as to whether that 14 consideration had any impact on Allied's loss? 15 A. I don't think that I would be able to do the exercise 16 that are the wrong instructions. I can't remember 17 exactly how this all unfolded, but if I'd been asked to 18 do that exercise I wouldn't have been able to do it 19 because I didn't have sufficient information on the 20 whole value of the OMLs 120 and 121. And so had I been 21 asked to do that, I would have said "I can't do that" 22 and so I would have had to have different instructions. 23 Q. We will come on to that in a second. 24 Now, what you've ultimately produced is also 25 a different calculation from the one that you were</p> <p style="text-align: right;">Page 243</p>
<p>1 A. Yes. 2 Q. Those two different processes are fundamentally 3 different. 4 A. Yes. 5 Q. Are you aware that there is an issue between the parties 6 as to whether Allied suffered any loss specifically 7 because of the value of the consideration received as 8 a result of the transaction? 9 A. Am I aware that -- 10 Q. That there is this issue between the parties as to 11 whether Allied suffered any loss as a result of the 12 operation of that consideration? 13 A. I'm not quite sure what you're getting at. Are you 14 saying am I aware that that's been pleaded or is that -- 15 Q. Yes. 16 A. No, I'm not sure. 17 Q. You weren't that that was a pleaded issue. I think we 18 said at the beginning you were instructed potentially by 19 August 2015 when the reply and the defence to 20 counterclaim went in, and it is in that document that 21 the issue arises. It is pleaded in the defence to 22 counterclaim and it comes in, but you weren't aware of 23 that because you weren't involved in the drafting of 24 that document? 25 A. In the drafting, no, I don't think so.</p> <p style="text-align: right;">Page 242</p>	<p>1 instructed to perform, isn't it? Your instructions are 2 to compare the market value of the NAE beneficial 3 interest and the hypothetical value of that NAE 4 beneficial interest, aren't they? 5 A. I've assumed that the market value includes the cash 6 flows in it that are the actual cash flows, and the 7 difference would be the difference between -- so the 8 value would change had the cash flows been the "but for" 9 scenario. And I have said in my report that I've 10 assumed -- certainly in the joint statement that I've 11 assumed that the difference in those actual and "but 12 for" cash flows should be taken into consideration when 13 considering the value of the entity -- of the asset. 14 Q. I think that's quite a round about way of coming to the 15 point. Let me put it a different way. You were 16 instructed to compare the market value of the NAE 17 beneficial interest -- the hypothetical value of the NAE 18 beneficial interest. What you've actually done is 19 compare the market value of a part of the NAE beneficial 20 interest with a hypothetical value of a part of that 21 interest; is that correct? 22 A. I've assumed that the NAE beneficial interest is made up 23 of a number of different elements. One of those 24 elements is the benefit that's going to come from Oyo 25 central, and I've said if there's a difference in that</p> <p style="text-align: right;">Page 244</p>

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<p>1 that affects the overall valuation.</p> <p>2 Q. But you've stopped at the partial calculation of the Oyo</p> <p>3 interest. You haven't gone on to --</p> <p>4 A. No, I haven't valued -- I haven't done a valuation of</p> <p>5 the other aspects of OML 120 and 121.</p> <p>6 Q. And you've said that because you wouldn't have been able</p> <p>7 to because the information wasn't available to you?</p> <p>8 A. That's right.</p> <p>9 Q. But that information has always been available to the</p> <p>10 respondents, hasn't it?</p> <p>11 A. I don't know.</p> <p>12 Q. Well, you exhibit to the joint statement documents that</p> <p>13 you say might be relevant to that further exercise,</p> <p>14 valuing the NAE beneficial interest. You got those from</p> <p>15 the respondents?</p> <p>16 A. Which ones were those?</p> <p>17 Q. They are in bundle F38, tabs 3 and 4. I think you refer</p> <p>18 to them in section 3.3 of the joint report. So there is</p> <p>19 an October 2012 KLR group document entitled "Allied</p> <p>20 Energy asset evaluation".</p> <p>21 A. Yes.</p> <p>22 Q. And then you refer to a September 2014 DeGolyer and</p> <p>23 MacNaughton report. So those are documents that were</p> <p>24 received from the respondents?</p> <p>25 A. Yes.</p> <p style="text-align: center;">Page 245</p>	<p>1 THE CHAIRMAN: We better give Mr Taylor perhaps a chance to</p> <p>2 move to a more comfortable part of the room. (Pause).</p> <p>3 Mr Nesbitt, tell us what we need to know about C40</p> <p>4 and C41.</p> <p>5 MR NESBITT: Well, you asked essentially what the document</p> <p>6 was, how it exists in its native format. It is, as</p> <p>7 I understand it, an Excel spreadsheet, which is</p> <p>8 maintained by the managing director's office's</p> <p>9 secretarial staff in Abuja in Nigeria, which is</p> <p>10 contemporaneously filled in with details of mail as it</p> <p>11 is received in the MD's office. The spreadsheet which</p> <p>12 is relevant for this dispute is the one for the year</p> <p>13 ending 30 December 2012, which is a distinct document.</p> <p>14 There is a spreadsheet, as I understand it, for that</p> <p>15 year.</p> <p>16 In terms of what you actually got, what you've</p> <p>17 received, the secretarial staff were asked to print out</p> <p>18 the page that relates to 8 and 9 August 2012, to see</p> <p>19 what mail was received on those two dates. That page</p> <p>20 was scanned as a PDF, emailed to the respondents'</p> <p>21 solicitors and that is what you have.</p> <p>22 Now, if you feel that it is necessary for you to see</p> <p>23 the document in its native application, as we said to</p> <p>24 the respondents several days ago, we are entirely happy</p> <p>25 to provide that to the Tribunal, but obviously that</p> <p style="text-align: center;">Page 247</p>
<p>1 Q. And they are relevant to that exercise of valuing the</p> <p>2 NAE beneficial interest, you say?</p> <p>3 A. Yes, they are relevant, yes.</p> <p>4 Q. The respondents have those because they are, within</p> <p>5 their group, the operator/owner of the OMLs. They have</p> <p>6 all the information connected to the OMLs.</p> <p>7 A. Yes.</p> <p>8 Q. So with some assistance from the respondents, you could</p> <p>9 have performed the calculation that you were instructed</p> <p>10 to perform?</p> <p>11 A. Yes, with sufficient support and time and money and</p> <p>12 everything else I could have done an analysis, but that</p> <p>13 wasn't feasible with what I had.</p> <p>14 MR SHOESMITH: No further questions. Thank you very much.</p> <p>15 MR WADE: It is tempting to ask him about page numbers, but</p> <p>16 I have no further questions.</p> <p>17 THE CHAIRMAN: Thank you very much.</p> <p>18 Thank you very much, Mr Taylor. You are excused as</p> <p>19 an expert.</p> <p>20 (The witness withdrew)</p> <p>21 Housekeeping</p> <p>22 THE CHAIRMAN: Now, that brings us almost to the end of the</p> <p>23 hearing. Correct me if I'm wrong, but the claimants</p> <p>24 wish to address us about C40 and C41.</p> <p>25 MR NESBITT: You asked.</p> <p style="text-align: center;">Page 246</p>	<p>1 would entail sending you an Excel spreadsheet, which</p> <p>2 contains a whole year's worth of correspondence into the</p> <p>3 MD's office, some of which is private and confidential,</p> <p>4 so the clients are understandably reluctant to provide</p> <p>5 that entire document to the documents. But they are</p> <p>6 entirely happy to provide it to the respondents if you</p> <p>7 feel after that explanation you need further</p> <p>8 satisfaction as to its authenticity.</p> <p>9 THE CHAIRMAN: The Tribunal is extremely reluctant to</p> <p>10 receive any document that has not been transmitted to</p> <p>11 the respondents, and I think you anticipated that</p> <p>12 answer. But anyway, the respondents do you have any</p> <p>13 comment on that?</p> <p>14 MR WADE: The only additional comment I have is that</p> <p>15 I understand from the correspondence received from</p> <p>16 claimant's solicitors that the extracts from the Excel</p> <p>17 spreadsheets you have received are further incomplete,</p> <p>18 in that they have omitted a number of columns, one of</p> <p>19 which is said to be empty and, therefore, of no</p> <p>20 consequence, and if that's correct -- I don't know if</p> <p>21 it's correct but if it's correct, of course, it makes no</p> <p>22 difference because it is empty. And the other, I'm not</p> <p>23 sure if is this is C40 or C41 but on this one there are</p> <p>24 apparently three missing columns.</p> <p>25 Ultimately, we remain in the same state of confusion</p> <p style="text-align: center;">Page 248</p>

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<p>1 as you appeared to express, sir, earlier today as to</p> <p>2 what is contained in these documents. If they are</p> <p>3 admitted we will make submissions on them on that basis.</p> <p>4 If they are excluded, we will say no more.</p> <p>5 THE CHAIRMAN: Very good. (Pause).</p> <p>6 The Tribunal had an initial question. The Tribunal</p> <p>7 understands confidentiality and the issue of</p> <p>8 confidentiality, but one way of dealing with</p> <p>9 confidentiality is to exchange documents between</p> <p>10 counsel. That's to exchange it in native format and</p> <p>11 that could deal with basically the problem.</p> <p>12 MR NESBITT: On the basis of some sort of undertaking not to</p> <p>13 disclose it to the lay client?</p> <p>14 THE CHAIRMAN: Would that be acceptable to the respondent.</p> <p>15 MR WADE: Perfectly, subject to instructions which I am</p> <p>16 looking to receive, but I am not receiving at the</p> <p>17 moment, it sounds --</p> <p>18 PROFESSOR LEW: It's a frequently used mechanism in cases</p> <p>19 where there is intellectual property --</p> <p>20 MR WADE: I am not resisting the proposition, but I don't</p> <p>21 have instructions on it.</p> <p>22 MR GUNNING: That's fine.</p> <p>23 MR WADE: Yes, that is fine.</p> <p>24 THE CHAIRMAN: So that might be a way of dealing with it,</p> <p>25 because the Tribunal discussed it and thought of the</p> <p style="text-align: center;">Page 249</p>	<p>1 the purposes of the position? Is that your position?</p> <p>2 Because if that's your position, then that --</p> <p>3 THE CHAIRMAN: Sorry, the respondents will get a chance to</p> <p>4 answer, but I clearly understood the respondents took</p> <p>5 the position that the document was incomplete, and</p> <p>6 that's part of my problem too. If somebody says to me</p> <p>7 "This is an extract from an Excel sheet", then I want to</p> <p>8 have all of the columns in the Excel sheet. I want to</p> <p>9 have a PDF exactly as that document appears on the</p> <p>10 screen for the secretary. But the respondents, you can</p> <p>11 add or whatever, but I can tell you what my concern is.</p> <p>12 MR WADE: So our position is very simply that we have asked</p> <p>13 various questions about these documents. We don't</p> <p>14 consider that they have been responded to, and we're not</p> <p>15 in a position to form any view about them as regards</p> <p>16 their awe authenticity or otherwise. If we have the</p> <p>17 native form of the document -- we actually only asked</p> <p>18 for the metadata, and that wasn't provided. A document</p> <p>19 with metadata would have helped us, but that wasn't</p> <p>20 provided. And so once provided, we'll be able to form</p> <p>21 a view, and that's really that.</p> <p>22 MR NESBITT: I will take instructions on the proposal.</p> <p>23 I understand I think there is no objection to doing it</p> <p>24 on a counsel-to-counsel basis on receipt of a suitable</p> <p>25 undertaking.</p> <p style="text-align: center;">Page 251</p>
<p>1 following procedure, and that is you've gathered that</p> <p>2 the Tribunal has some questions about the document, and</p> <p>3 thank you very much for your explanations, but as</p> <p>4 a first step you may wish to exchange it with</p> <p>5 respondents to see whether the respondents have any</p> <p>6 objection initially, point number 1.</p> <p>7 Assuming that the respondents object to the</p> <p>8 admission of the document, then you can make</p> <p>9 a submission within a week thereafter, to provide us</p> <p>10 with your submissions as to the basis on which we can</p> <p>11 take this document to be authentic. That's what we're</p> <p>12 basically concerned about.</p> <p>13 MR NESBITT: Yes.</p> <p>14 THE CHAIRMAN: The authenticity of the document. And then</p> <p>15 the respondents will be given a chance to respond to</p> <p>16 that a week later. The Tribunal would then look at</p> <p>17 that, decide whether to admit the document, and if so</p> <p>18 what weight, if any, to give to the document. This is</p> <p>19 a very onerous way of dealing with two specific</p> <p>20 documents, and if the parties decide it's not worth it,</p> <p>21 then we understand that as well. But that's the</p> <p>22 proposal of the Tribunal.</p> <p>23 MR NESBITT: Can I just understand from the respondents, are</p> <p>24 you seriously challenging the authenticity of the</p> <p>25 document? Are you suggesting it has been fabricated for</p> <p style="text-align: center;">Page 250</p>	<p>1 MR WADE: No objection.</p> <p>2 MR NESBITT: And we'll take instructions on that, and I'm</p> <p>3 sure we will be able to resolve it between us, and we're</p> <p>4 grateful to the Tribunal for taking the time.</p> <p>5 THE CHAIRMAN: Thank you very much. That issue is or may be</p> <p>6 dealt with.</p> <p>7 MR NESBITT: It will be.</p> <p>8 THE CHAIRMAN: Any other issues before we get to</p> <p>9 post-hearing issues? Are there any other issues on the</p> <p>10 claimant's side.</p> <p>11 MR NESBITT: No, sir.</p> <p>12 THE CHAIRMAN: Any other issues on the respondents' side</p> <p>13 before we get to post-hearing issues?</p> <p>14 MR WADE: No, I don't believe there are, sir.</p> <p>15 THE CHAIRMAN: Very good.</p> <p>16 Now, post-hearing issues. We would like, as usual,</p> <p>17 the parties to confer as to the appropriate post-hearing</p> <p>18 procedure. We have some ideas, but the parties should</p> <p>19 feel free to confer. First of all, the Tribunal does</p> <p>20 not anticipate transmitting questions on July 3. The</p> <p>21 Tribunal is very grateful for all of the explanations of</p> <p>22 the parties, and various issues have been raised,</p> <p>23 including the pleading issues, which were raised with</p> <p>24 respect to document C40 and C41 and whatever. Those can</p> <p>25 be dealt with in the post-hearing submissions.</p> <p style="text-align: center;">Page 252</p>

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<p>1 The Tribunal thought it would be appropriate in 2 accordance with normal practice to have simultaneous 3 post-hearing submissions, and the Tribunal thought that 4 a date such as 31 July, if that fitted in with everybody 5 would be perfect, with reply submissions, when that is 6 possible, and the Tribunal thought that, given the 7 holiday period, towards the end of August would be fine, 8 if that's possible for counsel.</p> <p>9 I realise that counsel may wish to agree on 10 something else, taking into account your vacation 11 schedules, but that was just an idea. We don't want it 12 go on forever. We would like it within four or five 13 weeks the simultaneous briefs, and then reply briefs as 14 quickly as possible, and if you agree on that that would 15 be very helpful.</p> <p>16 Two or three weeks after that we'd like the cost 17 submissions of the parties, and with the usual 18 procedure, one week, and you're entitled to make 19 comments on the other party's costs submissions.</p> <p>20 So that's what we have thought up in the way of 21 a post-hearing schedule. If you wish to raise any 22 issues, please feel free to do that now, but you're also 23 invited, of course, to confer.</p> <p>24 MR NESBITT: Sure.</p> <p>25 THE CHAIRMAN: Would you like to raise any issues on that?</p> <p style="text-align: center;">Page 253</p>	<p>1 it is up to you. In the interests of what you said 2 about the Tribunal having an end and drawing a line, 3 I personally would be in favour of one round of 4 submissions.</p> <p>5 THE CHAIRMAN: Respondents, do you have any comment on one 6 round of submissions?</p> <p>7 MR WADE: I don't. I am concerned over one round of 8 submissions, but I can see the force in Mr Nesbitt's 9 submission that we seek permission to reply if 10 necessary.</p> <p>11 So the additional comment with regard to costs 12 submissions is that subsequent to your -- was it 13 October? -- October procedural order, I recall that both 14 parties expressed a view that costs submissions should 15 come subsequently. I think just --</p> <p>16 MR NESBITT: I don't think we did. I think we parked it for 17 the purposes of the CMC that we had just before the 18 final hearing, but I don't think we expressed a view one 19 way or the other. I mean, our preference would be -- 20 sorry, can I just ask one question first? You're 21 envisaging dealing with costs in the award and not 22 having a separate award on costs?</p> <p>23 THE CHAIRMAN: Yes.</p> <p>24 MR NESBITT: So in terms of dealing with costs in the 25 post-hearing submissions, there is no reason why we</p> <p style="text-align: center;">Page 255</p>
<p>1 MR NESBITT: Well, I think just for clarity there was 2 a provision, as I think that is what you're referring 3 to, in the October procedural order for the Tribunal to 4 transmit a list of questions that it would like to see 5 addressed by the parties by -- it was actually 4 July so 6 that's no longer going to happen.</p> <p>7 THE CHAIRMAN: That's not going to happen.</p> <p>8 MR NESBITT: Right, understood. Then again, obviously this 9 was purely provisional in the October procedural order, 10 post-hearing submissions if directed two to four weeks 11 after receipt of the Tribunal's list of questions, 12 including submissions on costs. Now, as I understand 13 it, what you're now proposing is two rounds of 14 post-hearing submissions, followed by a set of 15 submissions on costs.</p> <p>16 THE CHAIRMAN: Yes.</p> <p>17 MR NESBITT: I think our preference, we can discuss it with 18 the other side -- and replies on costs -- we had assumed 19 that the Tribunal would stick to one round of 20 post-hearing submissions without provision for replies. 21 But if that's what you prefer, that's fine. A middle 22 way might be to have one exchange of post-hearing 23 submissions and then if there is a burning issue that 24 the other side desperately want to reply to, it can seek 25 leave for the Tribunal. Or you can schedule it upfront,</p> <p style="text-align: center;">Page 254</p>	<p>1 shouldn't do that with all other issues in one round, is 2 there?</p> <p>3 THE CHAIRMAN: The usual objection that I hear from law 4 firms, such as the ones involved in this case is "How 5 can we provide the detail of costs until we've completed 6 our post-hearing submissions?" Because the post-hearing 7 submissions takes time and costs money. So my 8 adaptation of the procedural timetable was intended to 9 deal with that objection in advance.</p> <p>10 If the parties wish to make a submission of costs at 11 the same time, that's fine, and they put in an estimate 12 for the costs for the last week or whatever, that's fine 13 with the Tribunal. We're completely in your hands, but 14 I was just anticipating the objection that I have heard 15 on several occasions.</p> <p>16 MR NESBITT: I understand that.</p> <p>17 MR WADE: Yes.</p> <p>18 MR NESBITT: I think on this side of the table at least 19 we're pretty good at filling in our time sheets, so we 20 should be able to give you an exact figure rather than 21 estimate with our submissions on everything else.</p> <p>22 MR WADE: And I think we may prefer nevertheless to have 23 a separate submission.</p> <p>24 THE CHAIRMAN: When we have the separate submissions, so if 25 one party wants a separate submission on costs that can</p> <p style="text-align: center;">Page 256</p>

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<p>1 occur a week or ten days later. However, this is</p> <p>2 an international arbitration, the submissions on costs</p> <p>3 are much less detailed than the submissions on costs in</p> <p>4 English court proceedings, and you know that one of the</p> <p>5 approaches of some tribunals is to compare the relative</p> <p>6 costs of the two parties, so we have a kind of standard,</p> <p>7 and that's why we like to get the submission on costs</p> <p>8 before we render the award. But --</p> <p>9 MR NESBITT: If I may ask, in terms of submissions on costs,</p> <p>10 what you're talking about is the numbers and the</p> <p>11 description, you're not talking about submissions</p> <p>12 related back to the way in which the case has been</p> <p>13 conducted or that kind of thing? I see Professor Lew</p> <p>14 shaking his head.</p> <p>15 PROFESSOR LEW: Unless there's some major issue where there</p> <p>16 is an allegation that the parties have abused something</p> <p>17 which the rules normally allow for costs, it's really</p> <p>18 a just a question of just knowing what were the legal</p> <p>19 fees and related expenses that the party incurred in</p> <p>20 coming to the state of the arbitration.</p> <p>21 MR NESBITT: Yes. Well, of course, we say the entire</p> <p>22 counterclaim is abuse of process, but that will come as</p> <p>23 no surprise to the Tribunal. But, yes, understood.</p> <p>24 PROFESSOR LEW: Look at the ICC rules -- this is not</p> <p>25 an ICC -- the LCIA is very similar -- is that the</p> <p style="text-align: center;">Page 257</p>	<p>1 reporters have followed the procedure I've adopted with</p> <p>2 no complaint, almost, and it is very much appreciated.</p> <p>3 So thank you to everyone.</p> <p>4 MR NESBITT: Thank you.</p> <p>5 MR WADE: Thank you, sir.</p> <p>6 (5.46 pm)</p> <p>7 (The arbitration adjourned)</p> <p style="text-align: center;">Page 259</p>
<p>1 Tribunal now, it has always been done, but since the ICC</p> <p>2 changed the rules the LCIA has got a similar rule, the</p> <p>3 arbitration tribunal has the right when allocating costs</p> <p>4 to take into account whether parties have acted</p> <p>5 expeditiously and appropriately in the conduct of the</p> <p>6 arbitration.</p> <p>7 MR NESBITT: Yes, indeed.</p> <p>8 THE CHAIRMAN: Mr Wade, you look like you want to make</p> <p>9 a comment.</p> <p>10 MR WADE: Not particularly.</p> <p>11 THE CHAIRMAN: Very good. Now, so we'll leave you to confer</p> <p>12 on that. You know what the Tribunal's approach is,</p> <p>13 I trust.</p> <p>14 MR WADE: Yes.</p> <p>15 THE CHAIRMAN: And so I think we've dealt with ... (Pause).</p> <p>16 The parties can seek to agree on whatever they wish</p> <p>17 to agree on, but page limits are not something that</p> <p>18 I usually impose.</p> <p>19 Now, with that, we have completed the hearing, so</p> <p>20 let me thank you all for your very active participation</p> <p>21 in your hearing. Your clients have attended, your</p> <p>22 experts and witnesses have attended and have</p> <p>23 contributed, and for which we are very grateful, and</p> <p>24 counsel has enlightened us in many ways, and it has been</p> <p>25 very, very helpful for the Tribunal, and the court</p> <p style="text-align: center;">Page 258</p>	<p>1 INDEX</p> <p>2 PAGE</p> <p>3 Housekeeping1</p> <p>4</p> <p>5 DR SIMON MOY (called)4</p> <p>6</p> <p>7 Examination-in-chief by MR GUNNING5</p> <p>8</p> <p>9 Presentation by DR MOY6</p> <p>10</p> <p>11 Cross-examination by MS WILFORD26</p> <p>12</p> <p>13 Cross-examination by MR NESBITT60</p> <p>14</p> <p>15 MR NICHOLAS GOOD (called)137</p> <p>16</p> <p>17 Examination-in-chief by MR NESBITT137</p> <p>18</p> <p>19 Presentation by MR GOOD138</p> <p>20</p> <p>21 Cross-examination by MR WADE149</p> <p>22</p> <p>23 MR MARK TAYLOR (called)182</p> <p>24</p> <p>25 Examination-in-chief by MR WADE182</p> <p style="text-align: center;">Page 260</p>

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